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DEPARTMENT OF AGRICULTURE

THE
MARKETING OF POULTRY
AND
POULTRY PRODUCTS

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FOREWORD.

THIS bulletin contains the findings of an officer of the Division of Agricultural Economics and Markets in connection with the all-important question of the marketing system of poultry and poultry-products in the Union. The question is all important not only because of the rapid strides shown by the poultry industry during the last ten or more years, but also because the hen has her place in the economy of every farm—however variant that place may be from farm to farm.

Economics, however, it should be remembered, is not an exact science and so allows much scope for difference of opinion. In a report such as this the writer is therefore bound to raise questions on which there may be a great diversity of opinion. Even within the Department differences may be expected in regard to some of the questions discussed and the report therefore does not necessarily interpret the views of the Department. At best it can but reproduce the impressions obtained by an honest investigator of existing conditions and tendencies.

This bulletin therefore is published not as the final word on the subject of which it treats, but in the hope that it may cast new light on some problems affecting the welfare of the poultry farmer and so stimulate thought in regard to those problems. If it should accomplish that, it will have earned sufficient reward.

PRETORIA,

November, 1929.

A. P. VAN DER POST,

(Acting Chief),

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PART I.

INTRODUCTION.

THE poultry industry throughout the world has taken many years to grow to what it is to-day and it has passed through many trying stages. Originally poultry was specially bred for cock-fighting. Then fowls came to be bred for exhibition only and it is only within comparatively recent times that selection and breeding for egg production and table use have become a main consideration. Breeding for type and feather, however, is even now not overlooked.

The poultry industry is now organised on commercial lines and is of great economic value. The total value of poultry and poultry products produced



in the world annually cause the products of the poultry industry to rank among the first of agricultural commodities.

Commercial poultry farming was made practical by scientific inventions, of which the most important was probably that of the mammoth incubator, for even though the poultry farmer could have found a sufficient number of broody hens, it is doubtful whether commercial poultry farming would have existed

without the aid of incubators. Scientific research has further aided in the elimination of many diseases and in the economic feeding and housing of poultry as well as proper breeding, which all lead to increased production.

Poultry raising is by no means the least important rural industry in the Union. Its contribution to the national income is estimated at approximately £2,400,000 per annum and there is room for still further development. The nature of the business itself makes it popular and attractive. Poultry farming is an active, healthy, open-air life and fits in with almost any type of farming or profession and is fairly remunerative when conducted on the right lines. Strenuous manual labour is not necessary as poultry farming requires a greater amount of detail work and calls for intelligence and skill. This makes it an occupation suitable for men, women and children.

Poultry farming in South Africa is carried on more as a side-line and a hobby than as an actual means of a livelihood. To come to the latter stage not only requires a considerable capital outlay, but also knowledge and experience. Generally speaking, therefore, prospective poultry farmers start on a small scale and make the poultry pay their own way until a commercial poultry



An up-to-date poultry farm amongst beautiful surroundings.

plant has been developed. Only then may other interests be dropped and poultry farming be made a sole means of support. At present, there are probably not a hundred people in the Union who practise poultry farming as their only occupation, although there are many who considerably supplement their income with returns from poultry keeping.

The development of the poultry industry in South Africa has been very rapid since the outbreak of the Great War. Before the war South Africa was a heavy importer of eggs, but since then economic and political factors have favoured South Africa and a considerable export trade has developed. There is a marked improvement in the class of bird produced and the average production per bird has been increased considerably. Methods of feeding and housing have been improved and there has also been an improvement in the method of marketing, although apart from the changes brought about by the Co-operative Egg Circles and specialist poultry farmers, marketing is still done on the original methods, but seems now ready for entire reorganisation.

GEOGRAPHICAL DISTRIBUTION OF POULTRY IN THE UNION.

With regard to distribution, the Director of Census and Statistics states that fowls are not equally distributed amongst the different races. Europeans possess 6,745,000 fowls, i.e. about three fowls to every individual, whereas the Natives possess 4,000,000 fowls, i.e. less than one fowl per head. In the case of Europeans these figures include fowls possessed by Asiatics and coloured persons, for whom no separate statistics are available. Compared with Asiatics and coloured persons, Europeans possess more fowls and therefore this proportion would be between three and four, if one could exclude the former. The following comparison with other countries having statistics available indicates our position :—

	<i>No. of Fowls.</i>	<i>Per head of Population.</i>
Union (all races).....	10,789,000	1.4
Union (Natives excluded).....	6,745,000	3.0
Denmark.....	20,000,000	6.0
Canada.....	43,700,000	4.7
New Zealand.....	3,500,000	2.5
Netherlands.....	9,600,000	1.3
Germany.....	67,600,000	1.1
Austria-Hungary.....	5,700,000	0.9
England and Wales.....	15,600,000	0.4

Of the 6,745,000 fowls belonging to Europeans in the Union, 1,700,000 are to be found in towns and villages and the rest (5,045,000) on farms. Of the 4,000,000 fowls belonging to Natives, 2,500,000 are found in Native locations and reserves, while 1,500,000 are found on the farms of Europeans, Asiatics and coloured people.

If we compare these statistics with those of 1921 we find that the number of fowls on European-owned farms (Native-owned fowls included) have increased by nearly 2,000,000 or 31 per cent. whereas the number in Native reserves and locations decreased by about half a million. The total number of fowls in the Union has thus increased by 1,400,000. This is about 15 per cent., whereas the population has only increased by about 10 per cent. Although this increase has been affected at the expense of the Natives, it must be remembered that 37.6 per cent. of the total number of fowls in the Union are still owned by Natives. It is a known fact that the eggs produced by Natives are not only small but of very poor quality, and the smaller the quantity of eggs and fowls of this class produced, the better for our local and overseas market.

On European-owned farms the greatest increase was experienced in Natal with 57 per cent., followed by the Orange Free State with an increase of 35 per cent., the Transvaal of 31 per cent. and the Cape of 21 per cent. As regards locations, we find the greatest decrease in the Transvaal. In the three other Provinces this decrease was very small.

Regarding the number of geese and turkeys, we find a decrease during the past five years, although the number of ducks has increased. This increase was but small as the table below indicates :—

Number.	1921	1926	Increase or Decrease.
Ducks.....	355,560	361,587	+ 6,027
Geese.....	216,173	195,152	— 21,021
Turkeys.....	235,166	233,438	— 1,728

GEOGRAPHICAL DISTRIBUTION OF POULTRY, 1926.

Province.	European-owned Poultry—Towns and Farms.			
	Fcwls.	Geese.	Ducks.	Turkeys.
Cape.....	2,387,481	62,003	97,620	61,795
Natal.....	985,347	8,315	42,256	15,617
Transvaal.....	2,136,470	47,159	102,993	69,297
Orange Free State.....	1,256,290	59,036	74,503	67,132
Union.....	6,745,588	176,513	317,372	213,841

Province.	Native-owned Poultry on European-owned Farms.			
	Fowls.	Geese.	Ducks.	Turkeys.
Cape.....	243,998	518	2,006	687
Natal.....	350,010	178	2,978	788
Transvaal.....	529,299	634	3,833	2,409
Orange Free State.....	415,888	642	10,626	8,495
Union.....	1,539,195	1,972	19,443	12,379

Province.	Native-owned Poultry in Locations and Reserves.			
	Fowls.	Geese.	Ducks.	Turkeys.
Cape.....	1,473,759	15,226	10,892	5,771
Natal.....	650,924	1,088	12,736	784
Transvaal.....	356,830	209	616	226
Orange Free State.....	23,625	144	528	437
Union.....	2,506,138	16,667	24,772	7,218

PRODUCTION.

The total production of eggs in the Union is estimated on the following basis:—Total number of Native fowls, 4,000,000. Taking one-third to represent cocks and chickens in June 1926, we are left with 2,667,000 hens, each producing, say, three dozen eggs per annum, i.e. 8,000,000 dozen eggs per annum.

Total number of European fowls, 6,745,000. Taking one-quarter to represent cocks and chickens in June, 1926, we are left with 5,059,000 hens, each producing, say, seven dozen eggs per annum, i.e. 35,413,000 dozen eggs per annum.

i.e. Native egg production..... 8,000,000 dozen eggs.

European egg production... 35,413,000 dozen eggs.

TOTAL..... 43,413,000 dozen eggs.

Taking the above estimate and the following we derive at the total annual value of the products of the poultry industry at 43,413,000 dozen eggs, less 10 per cent. for waste in bad and broken eggs, at 1s. per dozen :—

i.e.....	£1,953,630
Value of cocks and old hens of, say, one-third of total of 10,789,921, i.e. 3,596,640, at 1s. 9d. each.....	304,706
Value of duck eggs taking two-thirds to be ducks each producing 4 dozen eggs, i.e. 964,232 dozen, at 1s. 6d. per dozen	72,319
Half number of ducks sold, i.e. 180,794, at 2s. 6d.....	22,599
Third number of geese sold, i.e. 65,054, at 3s.....	9,758
Half number of turkeys sold, i.e. 166,769, at 6s.....	50,032
80 tons of feathers at 5½d. per lb.....	3,666
TOTAL.....	£2,416,710



A modern poultry plant in the Paddock District.

It is therefore clear that poultry is a big asset to the Union and deserves every care and attention, and in view of the fact that the Union's present requirements cannot absorb all eggs produced, every endeavour should be made on the one hand to stimulate local consumption, on the other hand to encourage the production of only such produce as will find a ready sale on foreign markets.

The following figures enable us to compare the importance of the poultry industry with other industries :

Total value of:	Wool produced in 1927.....	£12,536,276
	Mohair produced in 1927.....	424,000
	Tobacco produced in 1927.....	861,293
	Seed cotton produced in 1927.....	143,808
	Butter produced in 1927.....	1,471,500
	Eggs and poultry produced in 1927	2,416,710

CLIMATE.

The South African climate is considered to be one of the best in the world for the production of poultry and eggs. On account of the difference in seasons, South Africa has been able to place eggs on the English market at a profit. Poultry farmers in South Africa are in a position to dispose of most of their surplus eggs during the plentiful season and provided the English market remains open to South Africa, production can be increased up to the point when South Africa begins to overproduce for winter consumption.

Compared with Europe, however, South Africa labours under great disadvantages. During the summer months, December to February, the mean average temperature in South Africa is 90° F., while 100° F. is not a very uncommon occurrence. The July temperature, which is the hottest month in Europe, ranges from 50° F. to 70° F. in Northern Europe and from 70° F. to 80° F. in the south. When it is considered that 68° F. is the temperature at which a fertile egg will commence to develop an embryo, even though it eventually dies, and that at a temperature of 90° F. blood will form in three days, thus rendering it unfit for human consumption, these temperature figures become very important. It is therefore evident that the utmost care is necessary to prevent the rapid spoiling of fertile eggs in summer. The lower temperatures in Europe explain why it is possible to ship eggs in the summer from Russia to England without refrigeration, while in South Africa the utmost care is necessary when shipping eggs and poultry over even short distances.

PART II.

PRESENT METHOD OF MARKETING.

PRODUCER—STOREKEEPER.

Eggs.—The country storekeeper can really be considered as part of the farming machinery to-day. He is an integral part of the farming system. There is hardly a siding or station in the Union where a storekeeper has not rooted himself. He buys or barter mealies, wool or any other produce. Such products as eggs, poultry, butter and skins are usually exchanged for household groceries.

Sale to the country storekeeper is by far the most popular method of disposal of eggs, and it is safe to state that 90 per cent. of the eggs and poultry produced by general farmers are marketed through the country storekeeper.

It is amazing how ignorant most farmers are in handling eggs and poultry. The farmer very seldom bothers about collecting regularly or about proper standard packing cases, fillers, flats, etc. Apart from being ignorant with regard to handling eggs and poultry, he prefers the way of least resistance in the disposing of his produce, irrespective of its profitableness or otherwise. Furthermore few farmers produce eggs on such a large scale as to justify the investment of capital in decent egg boxes or to spare the time and attention required for the proper marketing of eggs.

There is also lack of one of the most essential factors in poultry farming, viz., personal interest. The general farmer does not realise that poultry farming is a business just as any other branch of farming. It is not absolutely necessary for many farmers to practise poultry-keeping. Consequently they do not make a business of it and so are the very people who keep the industry back. They are indifferent in methods, both of production and marketing of their poultry products, and not only set a bad example to others, but actually act as a brake upon the growth of the industry.

The average farmer collects his eggs probably once a day and when a stray nest, whether it is four or ten days old, is found, the eggs are placed with the others and they all go in a dish or other receptacle, which is kept in the house, more often than not on one of the shelves in the hot kitchen. The farmer visits the storekeeper once a week or once a fortnight or even at longer intervals, and then usually takes the eggs with him for sale (or barter would probably be more true). The period of delivery is further extended or reduced according to supplies. This means that the eggs are from seven to fourteen days old before the storekeeper obtains possession of them. Eggs are packed into the most convenient receptacle by the farmer, the most common packing materials being bran, chaff, straw, mealies, kaffir-corn, paper, grass or even kraal and stable manure. The storekeeper gets a further supply of eggs from the kaffir location where they may have been kept in the smoky and filthy hut for days.



Bartering eggs at the country storekeeper.

The eggs are delivered by the farmer in his motor car, open cart and horses or wagon, on which the eggs are exposed to the sun. The eggs are sometimes packed on top or next to hides, skins or other strong-smelling produce. Native women often carry eggs exposed to the sun for five or ten miles on their heads.

Apart from the deterioration due to bad or indifferent handling, the quality of the eggs is also affected by the methods of production. The birds are often underfed and having free range have admittance to garbage heaps, and decaying vegetable and animal matter. This is specially the case in kaffir locations and reserves. The eggs, although new laid, may be tainted and unfit for human consumption. This haphazard method of feeding also has a detrimental effect on the keeping qualities of these eggs which in most cases are fertile.

The eggs received by the storekeeper are unpacked by the Native assistant into big boxes or dishes, which are placed wherever it is most convenient to the storekeeper, who is usually pressed for space. The heat in some of these

stores in summer is often sufficient to start germination of fertile eggs. In some instances eggs are stored together with fruit and vegetables, not only in the same room but also on the same table. Eggs stored next to potatoes, onions, hides and skins, especially the latter, are common occurrences. Thus in one instance observed by the writer, eight thirty-dozen cases of eggs were stored in the same unventilated room with skins, hides and strong-smelling roll tobacco. In another case, eggs were stored in a very small room containing cheese and roll tobacco. Eggs and butter were further stored in a stuffy damp cellar where all kinds of rubbish were stored.

To prove the ignorance in regard to the handling of eggs, the following experience may be related: On entering a leading store in a fairly large centre, the manager was only too pleased to show the writer the place where he stored his eggs. He emphasised the fact that he had a splendid room built for eggs and butter only. On entering the room a strong vinegar smell was noticed.



A country store.

The manager was quite right as regards his room for eggs and butter, but in addition to this he also stored a barrel of vinegar there from which the bottles were filled for his customers. The clay floor under the tap was soaked with vinegar and the whole room was full of the vapour. On drawing his attention to this fact, the manager explained that he was unaware of the fact that eggs absorbed foreign odours.

The eggs are packed by the Native assistant into commercial egg boxes or in some instances into petrol or paraffin boxes (the latter are specially favoured in the Cape Province). The boxes and fillers are more often than not filthy as they are used over and over again. Broken egg contents, on the flats and fillers and on the boxes, are covered with dust and dirt, giving anything but an attractive appearance to the boxes. For lack of space, the boxes are sometimes stored on the verandah where the dust from the rough streets collects on the eggs.

If a storekeeper is contiguous to a station and supplies are plentiful or there is a dropping market, he may forward eggs every second or third day.

When supplies slacken or the market price is stable or rising, the periods of dispatch are extended and eggs may only be forwarded once a week or once a fortnight and at times even at longer intervals. If a storekeeper is on a farm or village not served by railway or regular bus service, he dispatches eggs whenever convenient, as it does not pay to send a wagon miles and miles for eggs only. It is, therefore, evident that by the time these eggs reach the wholesaler or exporter, deterioration in quality must have been considerable.

In the Native reserves the conditions are still worse. Eggs are brought in to the trading station (many miles from the nearest village or railway) in very small quantities, each Native woman or child bringing two or three eggs, often not much bigger than a pigeon egg. It is, however, said that these eggs are quite fresh when brought to the trading station, but the trader has to keep them on his premises until he sends his bullock wagon to town, which may be once a month. During good seasons traders do not use the railway service even where it is available, but prefer to send all their produce by wagon to the nearest market, and it is a known fact that eggs, after having been kept



DURBAN MUNICIPAL MARKET.—All crates are cleaned and lime-washed before they are returned to the senders.

on the trading station for a few weeks, often have to travel three or four days by wagon before they are sold. Considering the fact that 23 per cent. of the fowls in the Union are kept on these reserves and locations, it is undoubtedly a serious problem.

Poultry.—Poultry in the country is handled in exactly the same way as eggs. If a farmer or Native wishes to dispose of a few old hens or cockerels, they are taken to the nearest storekeeper. The fowls which have free range are caught and very often chased about until they are too tired to run. Their legs are then tied together or they are placed in some kind of coop and conveyed to the storekeeper in the best way possible.

At the store the birds are bartered or sold and placed in a run at the back of the shop. With one or two exceptions, all the runs that came to the writer's notice were in a critical condition. They are all made of wire netting and poles, part or all of which is under an iron roof. In some instances there are roosts, but more often than not they are missing. The runs usually have ground

floors on which there is an accumulation of manure and dirt and they are also infested with fowl ticks and lice. On hot summer days the birds are all struggling to breathe. They usually have plenty to eat—uncrushed mealies as a rule—but it is a common occurrence for the Native attendant to forget to supply the birds with water. The water troughs in the runs are dirty and muddy, and usually are found on the ground. In these water troughs, no doubt, bacteria have free range.

Under the circumstances, therefore, it is a real pleasure to be able to refer to the run in which a certain produce merchant visited kept his fowls. The run had concrete floors and the whole place, including the roof and floor, was lime washed once a week. At one time this merchant had numerous complaints of deaths in every consignment sent to Durban, and he could never trace the cause until his client drew his attention to the fact that the crates were infested with ticks. Upon investigation he discovered that his run was infested with fowl ticks. The old place was immediately broken down and the whole area disinfected and a new place was built. His contract with his client in Durban now includes the stipulation that no crate is to be returned unless it is thoroughly cleaned and the floor lime washed.

The birds are kept in the runs until the storekeeper has sufficient to fill half a dozen or more crates when they are forwarded to market. The crates usually containing twenty birds are of all shapes and dimensions, but on an average appear to be very suitable, although very expensive for transport purposes.

THE VARIOUS WAYS IN WHICH THE STOREKEEPER DISPOSES OF HIS EGGS AND POULTRY.

(a) *Direct to Consumer.*—During spring and early summer most people produce their own eggs, but towards autumn and winter the demand grows, and it very often happens that the storekeeper cannot supply eggs at all. Eggs are usually sold by the storekeeper at the same price that he pays for them in kind in the smaller towns, and 3d. per dozen above cost price in the larger country towns.

(b) *To Egg or Produce Merchants in the same Town.*—In some of the larger country towns there is occasionally a merchant who buys eggs from the storekeeper at the same price the storekeeper pays. In such instances the storekeepers usually receive instructions from the merchant how much to pay from week to week.

(c) 1. *To Market Agents*, who again sell to wholesalers or exporters direct on a commission basis. The prices are fixed by bargaining; such factors as source of production, consignee, distance from railway and from terminal market are all taken into consideration. When live poultry is handled, the quality, size and condition are deciding factors. Some wholesalers and exporters previously contract with the agents to buy certain brands at ruling market prices.

2. *Through the Market Master.*—This method is not practised to any extent as far as eggs from the country storekeeper are concerned. The reason being that it means double commission and no better price is paid. Table poultry, however, is still sold through the market master. The competition is good and poultry is bought on a quality basis in the central markets. Hotel proprietors, butchers, retailers, cold storage operators and wholesalers are all buying on the open market.

(d) *Direct to Market Masters.*—This method, although still practised by some, is, however, not used to any extent to-day and is only used for the sale of live poultry.

(e) *Direct to Wholesalers and Exporters.*—This method is used most extensively by country storekeepers. The wholesalers and exporters send circulars to almost every storekeeper stating what they are prepared to pay for eggs during the course of each week. This enables the storekeeper to fix his own price as he knows more or less exactly what he is going to get. These market reports from the exporters have become very useful to the storekeepers for, although the eggs are ungraded, they know what they are likely to get. The eggs are also bought free on rail and in this way the storekeeper has no railage or commission to pay.

Wholesalers, exporters and agents have done a great deal to improve the methods of marketing in South Africa. They know the egg trade and naturally look after their own interests. They are continually giving the storekeepers advice as regards packing, handling and frequent dispatch of eggs. Many of them replace broken and dirty flats and fillers at their own expense and point out the necessity for the improvement of the quality and size of the eggs. Without a single exception the wholesalers all supported the suggestion of buying eggs by weight, because they maintain that this would improve the size of the eggs. They further urged the standardization of boxes which they maintain would prevent any loss through breakage. One exporter explained to the writer that "the country storekeeper does not understand the egg business and has no right to be in it. They all lose money on eggs, but they buy 5s. worth of eggs from a farmer at a loss and the farmer again buys £5 worth of articles from them; this is where they make their profit."

The Storekeeper's Attitude towards his Poultry Business.

All available evidence seems to indicate that the storekeeper is in the egg trade very much against his own will; in fact, he would seem to be only too willing to discard the egg trade, because, not only does it not yield high profits, but rather in many cases heavy losses are incurred.

The main reason why the storekeeper still buys eggs is to be found in his desire not to offend his customers and to retain their trade.

The farmer is also inclined to go to the storekeeper who offers the highest price. Consequently it has become customary to offer high prices for these products. Most storekeepers consider these high prices paid by them as an advertisement and are prepared to pay for their advertisement in the loss of money on their produce account. As a general rule the storekeeper is prepared to pay for eggs whatever he can get back. The produce accounts, i.e. eggs, poultry, butter, of most storekeepers show either a loss or just balance.

The following is an extract from an auditor's report on a certain business. "This account (i.e. Eggs and Poultry) does not show a profit or loss. This is deemed quite satisfactory. Very little business has, however, been done in this direction and we are glad to see that the management is not keen to support this class of business as our experience is that general dealers are always conducting the trade in eggs at a loss." This auditor was convinced that not a single general storekeeper has made money out of eggs.

Only in very few instances does the storekeeper part with cash in payment for eggs and poultry. The farmer has to barter, and this is where he is often misled. The only reason for offering such high prices for eggs is with the object of getting the farmer's custom, and the storekeeper in thus bartering his eggs, poultry, butter, etc., is actually making a cash sale as he is paid in cash by the wholesaler.

On no account do general storekeepers trade in eggs and poultry with the object of profit. It is simply done because the farmer cannot dispose of these products in any other way, and because of the tendency of the farmer to transact

all his business at one place. The leading storekeepers in all district places are willing to discontinue their trade in poultry products, provided that every other storekeeper is prepared to do so, and some other arrangement can be made by which the farmer can dispose of his produce. The storekeeper is not the proper man to do the poultry trade on the present system as he does not possess the proper accommodation or knowledge and as a rule has no interest in the trade.

During recent years there has been a noticeable improvement in the case of many farmers in the preparation of their produce for market. Many poultry men have realised the value of the poultry business and are prepared to give it the necessary attention. The commercial poultry farmer has now reached a high standard and even the general farmer who has taken up poultry as a side line must be given credit for some improvement.

This improvement must be attributed to several factors. The farmer himself has begun to realise the importance of the production and marketing of first-class quality. The work of many years done by the Department of



Sunlight could easily be used for testing eggs.

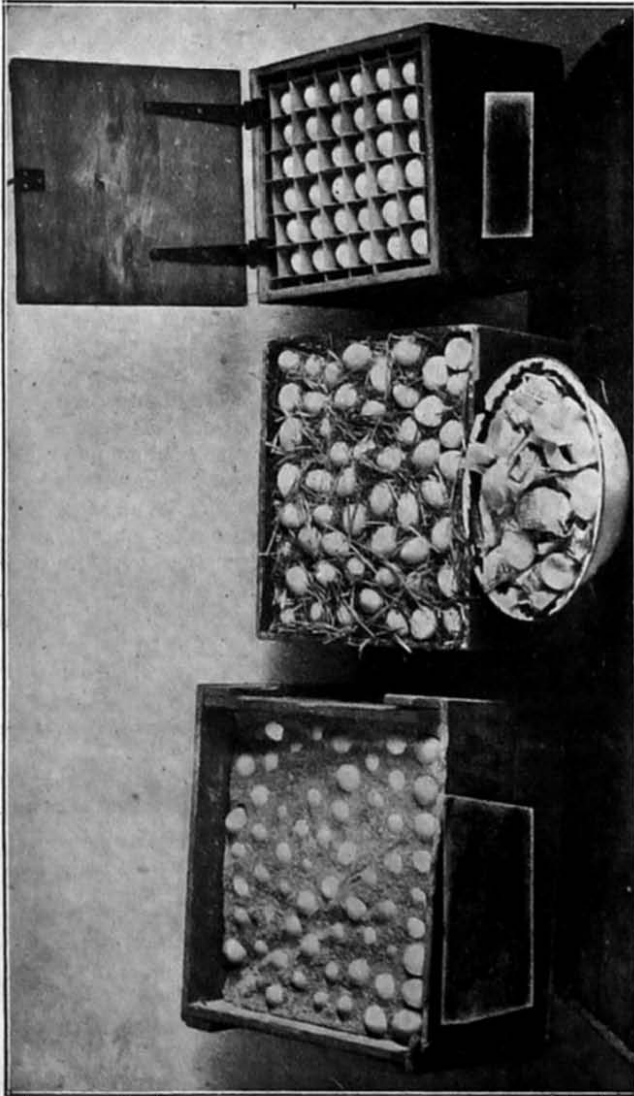
Agriculture, through its officers and publications, is beginning to bear fruit. The South African Poultry Association through its official magazine and conferences has educated the farmer and the extensive advertising of specialist poultry stock breeders, as well as egg-laying competitions, have undoubtedly contributed to the progress that has been made.

Method of Payment.

The storekeeper, with few exceptions, does not pay cash for eggs. He only trades and, whether the farmer requires anything or not, he must take something for his eggs, because he cannot get cash. This method is very unsatisfactory, as the farmer very often wants cash badly, while he has to buy things that he really does not require.

The storekeeper makes no distinction between the eggs from one farmer and that of another. He will pay the same price for a dozen of small eggs, half of which are probably stale or bad, as for a dozen of 24-ounce new-laid

eggs. The farmer is paid for every egg that he brings in whether it is new-laid, fresh, stale, bad, clean or dirty, and all eggs are paid for at the same rate. This means that the producer of a good egg loses money while the producer of a bad or indifferent egg obtains what he does not deserve. There is no inducement for the conscientious farmer, who has to sell through the storekeeper, to deliver



Eggs are packed in various ways.

his produce in first-class condition. Many conscientious poultry farmers who are in a position to do so either join an Egg Circle or dispose of their eggs in a more profitable way than through the storekeeper, but most farmers produce on too small a scale to make any other method payable as the overhead charges are too high.

Live poultry, with the exception of turkeys, is paid for per bird. The storekeeper estimates the value of the bird according to size and pays whatever he thinks he can get back. In certain parts of the country, fowls, ducks, etc., are also paid for by weight. This is decidedly an improvement on the old system. Turkeys are more often than not paid for by weight. The barter system also prevails with regard to the purchase of poultry, but is not so universal as in the case of eggs.

OTHER METHODS OF MARKETING.

(a) *Producer—Consumer.*

Direct sale by the producer to the consumer is the most profitable way for the disposal of poultry and poultry products, and is to the best interests of both parties, provided the cost of distribution is not excessive. By means of this method, the product can be delivered absolutely fresh and all extra handling and transportation charges as well as profits to various middlemen are eliminated.

A considerable amount of trade is done in this way, not only in the country places, but also in the big centres. In the country places, the poultry man usually supplies his neighbours with all the eggs they require or that he can supply them with. If conveniently situated, the consumers usually send for their requirements to the producer or when the producer is on a farm just outside the village, he delivers eggs to his customers at regular intervals. In these direct sales the price is usually fixed by the ruling market price or the price paid by the storekeeper. The producer may also enter into a contract with consumers of fairly large quantities of eggs such as hotels, hostels, hospitals or even private people for the regular supply of a fixed quantity of eggs, or for the supply of all their requirements at a fixed price per dozen all the year round. Where a contract stipulates the quantity of eggs, the customer can obtain additional quantities at the ruling market price should he require them. A producer entering into such a contract has, however, to be very careful not to contract for the supply of a greater quantity of eggs than he can produce during the scarce season.

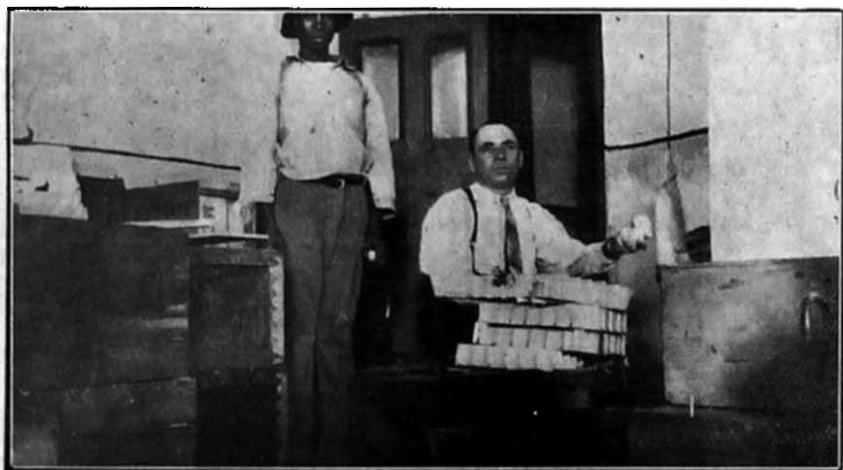
This method is very satisfactory as the consumer need not be concerned about his supplies as the delivery is as a rule very regular and the quality good. The producer, on the other hand, is certain that he will be able to dispose of a definite quantity of eggs each week. The greatest disadvantage in this method of direct sale is that the producer sells his eggs to different parties whilst at certain times of the year, especially during the spring, he may be at a loss as to how to dispose of his surplus eggs. He has also to make up various small consignments which involves extra labour and time, which is troublesome for the man who does not practise poultry-farming on a large scale. The method of having an annual fixed price per dozen does not seem to be so satisfactory as the quarterly fixed prices, which is always more or less the same as the ruling market prices. Consumers as a rule do not like to pay 2s. per dozen when the market price is 1s. 3d. per dozen, and it is to the advantage of the producer to realise a high price for his eggs when the production is low.

(b) *Producer—Retailer.*

The method of sale by the producer direct to the retail trader is very well developed in the Union. In the first instance, the country storekeepers should be considered as retailers, as they supply eggs to those in town who do not keep their own fowls or buy direct from producers. This is, however, a comparatively small trade except in the larger country towns.

Many poultry farmers, especially those in and about the large consuming centres, have arranged with retailers such as grocers, creameries, etc., to take all their eggs at top market price throughout the year. The producer is well satisfied with this arrangement as he gets the best price and has no trouble to dispose of his eggs, and payment is certain and is made regularly every month. He does not only realise top market price, but he pays no commission, and some retailers have even gone so far as to pay out the Egg Circle price plus the commission charged by the Circle. The farmer must deliver or rail his eggs every second or third day and has to guarantee every egg as new-laid. In some instances he is requested to grade them into two or three grades. Although the price may be lower than that which the farmer would have received on sale by contract or direct to the consumer, he has the advantage of selling all his eggs at one price to one man.

From the retailer's point of view, this method is, however, not so satisfactory. He is compelled to pay top market price and therefore cannot buy to the best advantage. During the plentiful season he receives more eggs than he can dispose of by retail sales and is, therefore, forced to dispose of his surplus in



A retailer testing eggs on his premises in order to satisfy his customers.

another way or to store them in cold storage or even preserve them for the winter. As he would have a shortage during the scarce season if he had only sufficient customers to supply his summer requirements, he is forced to keep enough customers to supply him with sufficient eggs for the scarce season, which gives him a surplus in summer. On the other hand, he dare not refuse to take eggs in summer as he is under obligation to take all his customers' supplies. This system of buying is probably the cause for the high cost of distribution of eggs in the big centres.

The main reasons why eggs are bought direct from the producers are to be found in the fact that the retailers are assured (a) of the quality, and (b) to a certain extent of their winter supply, which they want for their regular customers. Most retailers would prefer to buy from wholesalers, provided they were assured of the quality at all times as well as the quantity during the scarce season. The present system of direct purchase from the producer has been very profitable to many poultry men, but now that the egg circles are well established and can deliver a good article regularly, this producer-retailer

system will probably decline to a certain extent. The cost of marketing connected with the retailer system is probably the lowest from the producer's point of view as it involves only legitimate transport charges.

(c) *Producer—Commission Agents.*

Commission agents are generally employed in South Africa for the disposal of poultry products by fairly large producers, situated near the railway, but far away from central markets. These farmers do not wish to sell through the country storekeeper, and therefore send direct to the central markets, where, although the expenses and trouble are much more, they get better nett returns.

Some of the commission agents specialise in eggs, poultry, butter, etc. They occasionally go out into the country to solicit new trade and also to give the farmers advice as regards preparation of their produce for marketing, besides explaining the faults of consignments. Most commission agents are of great assistance to the farmer in the disposal of his produce. They sell to the best advantage and try to give the farmer a square deal.



Types of egg-boxes used.

Commission agents sell (a) through the market master by public auction, (b) on the market direct to consumers, (c) to wholesalers. Their long experience and knowledge of the egg trade enables most commission agents to sell to the best advantage as they know all the possible channels through which they can sell. They are further in a position to judge when they should sell or hold back which is often in the interests of the producer.

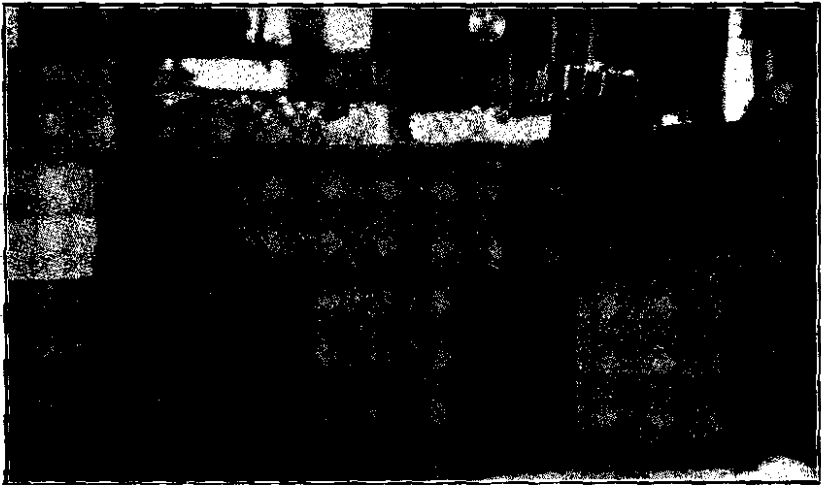
(d) *Producer—Municipal Market Master.*

In certain areas a considerable trade in eggs and poultry is done on the Municipal Markets and in others again the trade is very insignificant. At Johannesburg, for instance, sales of eggs on the market are insignificant, but trade in live poultry, enormous. At Durban, again, an enormous trade is done on the market in both eggs and poultry. On all municipal markets, except Durban, commission agents as well as the market masters, act on behalf of the public. The market master invariably acts as auctioneer, but the farmer is at liberty to choose whether he wants the market master or someone else as agent.

The eggs are sold per box as they arrive, the contents of which may be any quantity, such as six, nine, twelve, eighteen or thirty dozen eggs. From evidence gathered, it appears that the six and nine dozen boxes sell best, but these boxes are expensive, breakage heavy and railage high, so that the nett results may not be the best. The reason for these eggs selling better is because many purchasers only want small quantities and are prepared to pay a slightly higher price rather than buy more than they require.

The main objection to the municipal marketing system is that one must practically, so to speak, live on the market before one can really buy to the best advantage. Unless the quality of the eggs of each individual sender is known, considerable risk attaches to purchase, as a loss is bound soon or late to result. Thus a housewife buying new laid eggs of unknown brand may find to her discomfort that only the top layer contains large eggs while the lower layers consist of small eggs, and, in some instances, even of eggs of doubtful quality.

At the stalls on the markets eggs are sold as new laid, although they may not be that at all. Cold stored or fresh eggs are often mixed with new laid



Eggs unattractively displayed for sale on the Johannesburg Municipal Market.

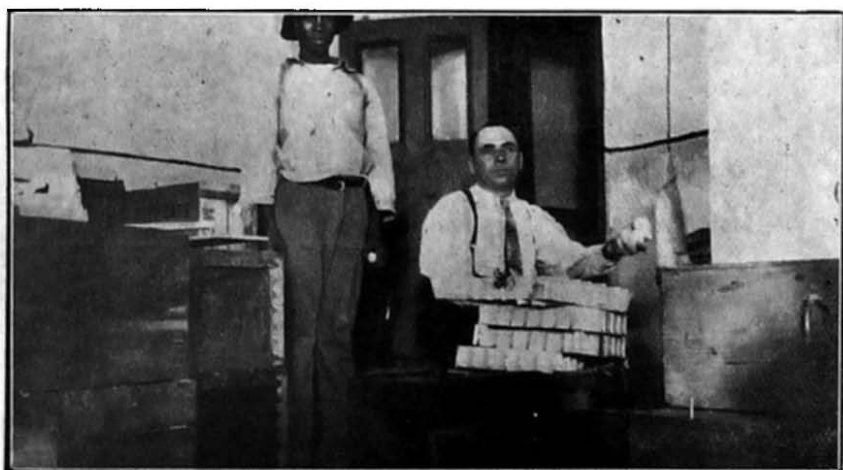
eggs and then sold as new laid. These eggs, however, are all tested beforehand and generally no bad eggs will be found among them. The price is, as a rule, also lower than that at which actual new-laid eggs are sold by the first class retailers. The stalls occupied by commission agents usually sell a much better class of egg, known as the country new-laid. Each agent knows his clients and, therefore, is in a position to say whether the eggs are a good brand or not.

The method of quoting prices on the markets also calls for comment. It only emphasises the fact that one must live on the market in order to buy correctly. New-laid eggs are sold from 1s. 9d. to 2s. 6d. and this difference naturally raises the question as to the reason why there should be that difference if there is no difference in quality. Only on some few markets, however, a difference is made between new-laid and fresh eggs, and in most instances the price is quoted from, say, 1s. to 2s. 6d. which does not give the farmer any idea of what price his eggs should obtain.

It was observed that in the Durban market day after day certain particular senders realised better prices than others. Upon investigation, it was found

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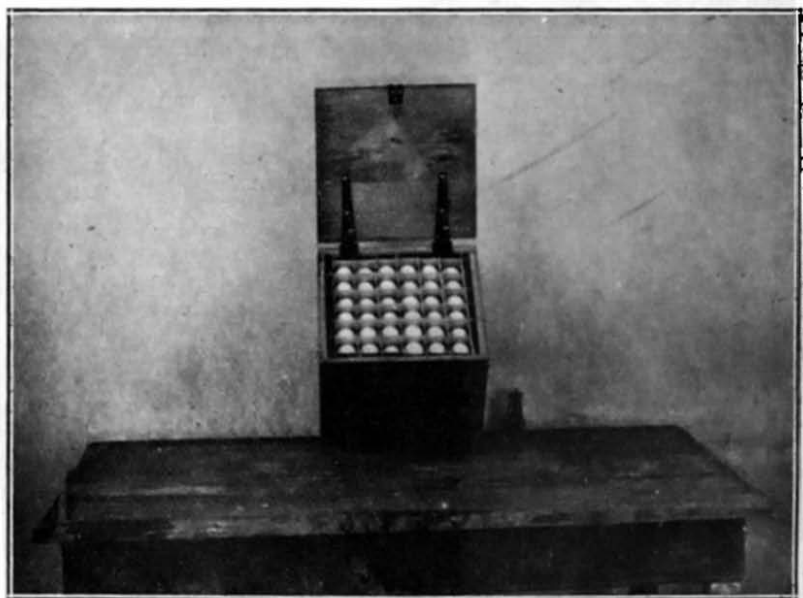


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that the eggs from these farmers were not only absolutely new laid, but also of even pack and bigger than most of the eggs sold on the market. These large eggs were particularly wanted for export. In other cases again, although the eggs were big, there was always a certain percentage of stale eggs amongst them, due to irregular marketing. It is therefore clear that the present system of market intelligence for eggs as well as for poultry is very unsatisfactory to both producers and consumers and only gives them a vague idea as to the ruling prices. Unless standardisation is enforced, the housewife, even if she could visit the market, cannot gain much from it. With standardisation, however, the public might again patronise the market as they would be in a position to buy even without living on the market. The housewife of to-day is, however, not in a position to visit the market regularly as she has other duties to fulfil and prefers to buy everything from the hawkers, even though she may know that she is overcharged. If she were to go to market an enormous amount



There is a ready market for these eggs.

of time would be wasted before she could obtain what she wants. She therefore prefers not to go to market and push her way through the cosmopolitan crowd of Europeans and non-Europeans as frequent the market to-day.

(e) *Producer—Huckster.*

The amount of trade done by hucksters as far as eggs and poultry are concerned is very small. This is probably due to the fact that the country is too sparsely populated. A huckster cannot deal in perishable products: as he has to travel many days in a hot sun. Live poultry is, however, often taken by the huckster, and he may also take eggs on the last few days of his journey. This kind of trade is, however, done to some extent in certain parts of the country, especially the Western Province and parts of the Orange Free State.

(f) *The Wholesaler.*

The wholesaler obtains very little of his eggs or poultry from the producer direct. His main sources of supply are the storekeepers, the municipal markets and market agents. During the export season, the greater portion of the eggs from the various storekeepers are accumulated at Johannesburg and Capetown. A small proportion goes to Durban, Port Elizabeth and Potchefstroom.

As already pointed out, the storekeeper assembles all the eggs and then forwards them to the wholesaler in the central markets. Storekeepers in many cases consign their eggs to egg dealers in the larger country centres, who again forward them to exporters and wholesalers in the central markets. As a general rule exporters and wholesalers buy eggs free on rail and pay a straight price per dozen, taking the risk for quality and size. When fixing prices the exporters usually allow about 25 per cent. for bad, stale, dirty or small eggs that would be unfit for export. Some exporters, however, only pay for good eggs and test all eggs before accounts are settled. This is certainly a development in the right direction, for if the storekeeper is paid for his eggs on a quality basis he will be forced to test the eggs before he pays for them.

Liquid Eggs.

The storage and use of eggs in liquid form has become very popular in many countries to-day, although the frozen egg industry was formerly in disrepute because the industry was principally in the hands of unscrupulous people, who would send bad eggs frozen into commerce.

This practice is only in its early stages in the Union and there is possibly a great future for it, provided the industry is protected from the beginning. Eggs of doubtful quality have been put on the market and many bakers have lost money through this. The frozen product could not be relied upon and at one time, during 1927, egg merchants were offering liquid eggs at as low a price as 4d. per lb. with the mere object of disposing of their inferior stocks.

The export of liquid eggs has not met with greater success than the local trade and heavy losses have been incurred. The failure of both local and export trade is principally due to lack of knowledge and experience, as a result of which proper precautions are not taken in the preparation of the product.

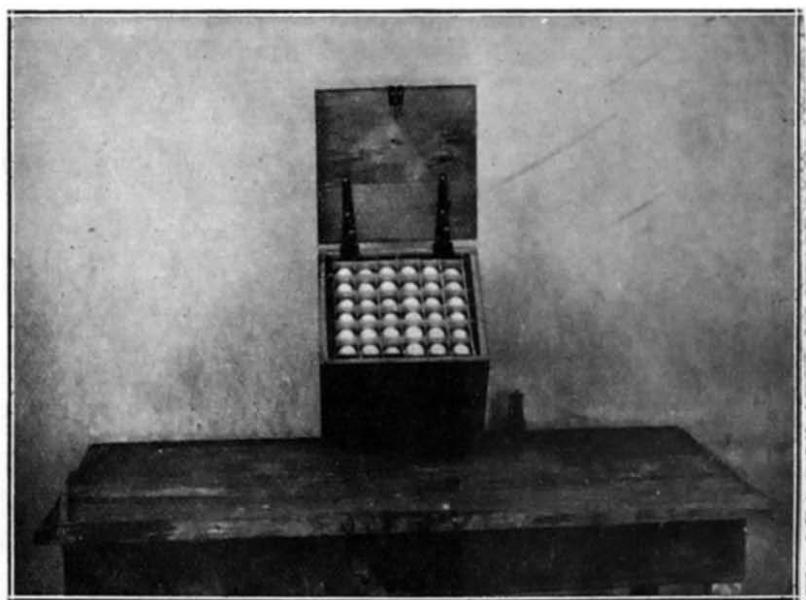
To make a success of this class of business, it is essential that its manufacture should be under the strict supervision of inspectors and that it should be carried on only when certified premises and proper machinery are used.

If an up-to-date plant can be erected for the manufacture of liquid eggs, it will undoubtedly prove to be a great benefit to the industry, especially during those months when export is impossible in spite of over-production. On the other hand it does not pay to erect an expensive plant unless it can be worked the whole year.

In favour of this method it is maintained that the fine fresh flavour of the spring egg is preserved better in the frozen product than in the shell, that it is bacterially clean if prepared in the proper way and that eggs preserved in this way are better suited for baking purposes than eggs preserved by other methods. The work in preparing large quantities of eggs in bakeries is eliminated and there is a uniform supply at a uniform price all the year round.

Poultry.—Live poultry is principally sold through the storekeeper, who again sells through the municipal markets, but this is a very expensive method and direct sale to wholesalers who would pay the same price as on the market should be encouraged, commission and extra handling charges being thus eliminated. There is a good local demand for the right class of table poultry, especially in the coastal towns.

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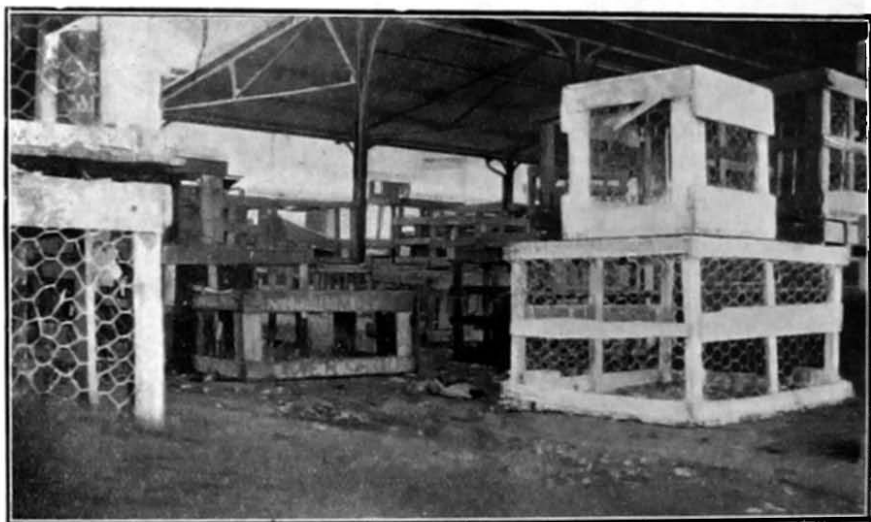
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The best time to sell chickens and ducks is from January to June, while turkeys should be marketed from June to September. Most farmers make the fatal mistake to send their poultry to market a few days before Christmas or other holidays and forget that it takes time to prepare the birds for the retail trade. It is, therefore, advisable to market all poultry at least fourteen days before any big holiday. There is a great demand for prime chickens and ducks during Easter, especially fat birds, as this is the Jewish Passover and festival. Turkeys sell better towards Christmas, but as their condition is usually poor at that time, the wholesalers prefer to buy earlier and store the birds for Christmas.

The birds produced are, however, very poor and some of the wholesalers resell from 15 to 20 per cent. of the birds on the market as unfit for table use. This low class bird keeps the price down and propaganda work is earnestly required among the storekeepers and farmers in order to induce them to send only the better class birds and grade for quality and size wherever possible.

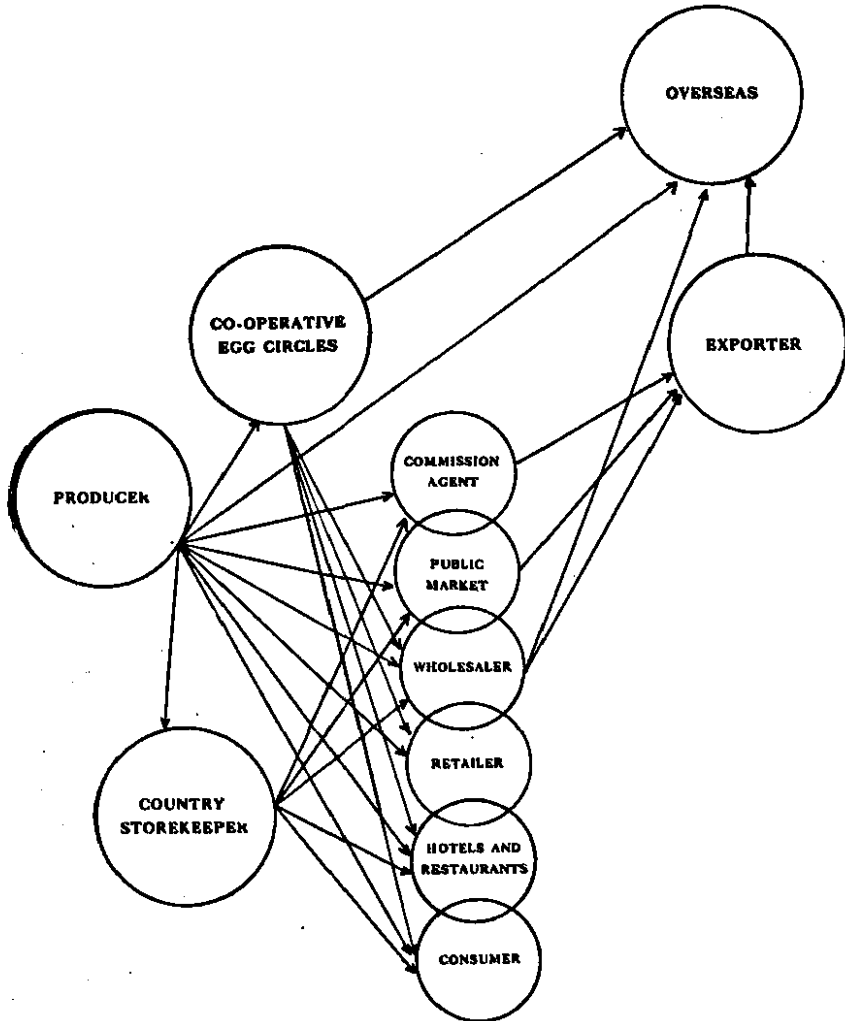


Types of crates used for the transport of poultry, Johannesburg Municipal Market.

Endeavours have been made to off-load the inferior birds on to the Native compounds on the mines, but up to the present this has not met with success. Poultry can undoubtedly be used much more extensively than it is to-day and propaganda work in this direction is essential. On the other hand, the housewives in many instances do not like to use poultry unless they can feed them themselves for some time. The presence of the kaffir fowl and other fowls that have been sent to the market without being fed properly has certainly a baneful effect on consumption.

Feathers.—The total production of feathers in the Union is from 75 to 80 tons per annum, and is more than can be consumed locally. Fowl feathers have the best market with hotels, hospitals and other institutions who require a cheap article, while duck and geese feathers are more in demand by private householders. The wholesale poultry dealers are in a much better position to prepare feathers for market than the householder as great care and attention has to be given to its preparation.

Natural Distribution of Eggs and Poultry from Producer to Consumer is summarised in the following diagram :—



Some of the functions to be performed during the process of marketing :—

1. Satisfaction of producers.
2. Assembling before transportation.
3. Packing.
4. Transportation.
5. Risk of market fluctuation.
6. Financing.
7. Storing.
8. Advertising.
9. Accounting.
10. Credit risks.
11. Testing and grading.
12. Grades for different types of consumers.
13. Delivery.
14. Satisfaction to consumers.

*PART III.***TRANSPORTATION.**

Transportation naturally involves the moving of poultry products from the point of production to the house of final consumption. Different types of transportation are used in different phases of transit, but as long distance conveyance is the most important, it is proposed only to deal with it in this report.

Transport facilities are among the most urgent requirements for the effective marketing of perishables. It is, therefore, useless to attempt poultry farming unless there is provision for the quick transport of eggs at regular intervals.

The railway is used extensively for the transport of eggs and poultry. The perishable goods trains serve the country very well indeed, and on some branches, the railway authorities specially cater for the conveyance of eggs. Special trucks are run for the conveyance of eggs only and in some instances special trucks are attached to the train for the transportation of eggs for Egg Circle members only. This arrangement was necessary to prevent heavy



How eggs and poultry should not be stored.

breakage and delays in the transshipment of eggs at some points. The railway authorities further are careful to safeguard eggs from contact with anything that may have a detrimental effect on the flavour or keeping qualities of eggs. Special arrangements are made for the shipment of export eggs by insulated cars and every possible care is taken for their safe transport.

The railway officials do their best to minimise the losses of consignors of eggs and consequently to themselves, because if negligence is proved on their part, they have to pay the losses. Rough handling often causes heavy breakage, but very often the type of box or method of packing eggs is the cause of breakage. A weak handle on a box very often causes it to fall or the lack of a handle may make handling difficult. Some boxes used for packing eggs do not disclose the fact that they contain eggs. The heaviest breakages always occur when small boxes are used as the Native assistants would rather throw a box two or three yards than carry it there. When eggs are to be transhipped, especially if this is to happen more often than once, the breakage often is high. Faulty packing is, however, an important cause of breakage.

The fear that excessive breakage, high freight and commission will absorb the final returns has, however, often prevented the direct movement of eggs and poultry from producers to terminal markets. Many prospective Egg Circle members have been influenced by this consideration in their decision not to join the circle, whilst members have for the same reason sometimes resigned. Delay in the return of empty boxes or crates is a frequent occurrence, and causes a heavy outlay of capital in extra equipment.

The above form the main objections against distant sale in the case of the small producer who cannot produce or despatch sufficient produce so as not to be affected by the minimum charges for cartage, freight and commission. Rather than incur all this trouble and risk, many a producer prefers to dispose of his produce to the nearest storekeeper. Whilst the freight charges on poultry and on small consignments of eggs are undoubtedly high, the prices at the terminal markets are not so attractive as to encourage the farmer to send direct to the central market.

On the other hand the difficulties and expenses of handling small consignments cannot be overlooked and a decrease in freight cannot be expected



Geese and ducks preserved in cold storage for local consumption.

unless both egg boxes and poultry crates are standardised. It is, therefore, strongly to be recommended that in the first instance all egg boxes should be standardised, each box to have a definite weight, and secondly that freight on each size of box should be fixed over certain distances, irrespective of the weight of the eggs contained therein. This would prevent the extra handling in weighing the boxes which very often may cause breakage and at the same time save an enormous amount of labour. It is further to be recommended that the empty boxes should be returned free of charge.

Live poultry, on which the railage is certainly excessive, is a very difficult problem. In this case, too, a standard crate seems to be the only way out of this difficulty, and if a proper collapsible one could be invented, empties too should be returned free of charge, and the rate on the forward journey reduced. A railway truck as run by railways in the United States of America cannot be advised for South African conditions. The two main objections to a poultry truck of the American type which is fitted with permanent crates on either side and a passage in the centre are (1) waste of time in taking birds out of the

coops and placing them in the truck and replacing them into coops at the other end. This would also result in fowls getting away and this system will probably not work satisfactorily at all. (2) It would mean that two sets of crates would be kept one at each end and then still the fixed crates on the truck, which really means three sets. In America where poultry is conveyed and sold in car-lots this method does work satisfactorily, but our wholesale markets for poultry are really retail trade compared with the American wholesale trade. A system that should work admirably in the Union is, however, a poultry truck fitted with a framework into which a standard crate fits. The crates should be very light and no time would be wasted at either end as the crates will be shifted into the framework into which it easily fits and secured by means of a lever and taken out again at the other end. These trucks should be attached to trains running over certain routes on fixed days, say one or two days a week or even at longer intervals, and no poultry should be conveyed on any other day, or poultry conveyed on other days should be subject to higher freight. An assistant should be in charge to attend to the birds en route.



Method of conveying poultry by rail. This is a very uneconomical method, both as regards space and the health of the poultry.

Experiments on these lines will undoubtedly prove successful and South Africa may still have a big table poultry industry in the future. It is well known that the table poultry industry in the Union is not what it should be, and many are agitating for more development in this direction. It is doubtful whether table poultry can ever be made profitable with the existing transport facilities, as transportation undoubtedly has an enormous effect on the success or failure of table poultry. If live poultry can be transported economically over great distances, South Africa has a great future in table poultry, but under present conditions it is futile to advocate the production of table poultry in preference to the production of eggs. To make table poultry pay, it is necessary to reduce both cost of production and cost of marketing. Cost of production can be greatly reduced when the birds have free range and can find their own food to a certain extent and birds can be raised very economically in our mealie and wheat growing areas. If quick and economical transportation is available, it will eventually be a great asset to the general farmer.

Much discretion should therefore be used when advocating the production of both table poultry and eggs. Unless a farmer is so situated that he can deliver his product in a first class condition on the market without any breakage in the case of eggs or loss of weight or birds in the case of poultry, it will not pay him to invest money in poultry rearing. On the other hand, it is strongly recommended that the Department should do everything in its power to encourage the production of eggs and poultry where facilities have been made by the South African Railways for the safe and quick transport of perishables. When a new Road Motor Service or a new railway is opened or its extension to a district is anticipated, all possible attention should be given to the farmers and the production of eggs, poultry, etc., should be encouraged as much as possible. This would be beneficial to both farmers and the South African Railways, who will then give better service to the farmer. The greatest advantage is always obtained where certain groups of farmers specialise in the production of one commodity. These farmers can always produce and market to greater advantage than isolated individual producers, as better facilities can always be obtained in transport and as the farmers having a common interest and encountering similar difficulties can jointly find a solution for their various problems. In the case of poultry-farming where the inexperienced man always finds many difficulties this seems to be particularly the case, and were all (or the majority) to keep the same breed, the problems of diseases, production and marketing might be solved by them jointly.

PART IV.

THE COST OF MARKETING.

Eggs.

The cost of marketing varies with the different ways of marketing. To the country storekeeper it is a very small item. The Native assistant usually receives the eggs from the farmer, counts them and returns a slip to the counter stating the quantity. During his spare time he packs them into 30-dozen commercial egg boxes or other boxes used by the storekeeper. He also delivers them at the station and the storekeeper does not pay much extra to get this work done. The cost of the box and fittings are small items as they are used over and over again. The railage, of course, depends upon the distance from the market, but with the exception of eggs sent to very distant markets, railage is of very little consequence. Few storekeepers pay railage and cartage charges of more than 1d. per dozen, whereas the majority pay $\frac{1}{2}$ d. per dozen. Four or five empty returns only cost 1s. and breakage is very small. Where eggs are sent direct to wholesalers there is in most instances no commission to be paid. From a marketing point of view, the storekeeper is the most economical middleman to handle eggs. In fact, the cost of handling is so low that it seems to overcome other objections which arise when the storekeeper has little or no interest in the egg trade. The Egg Circles have repeatedly tried to establish depots, but the big stumbling block has always been excessive overhead charges. This is easily understood when the Circles have to pay responsible people to take charge of the depots and rent stores. One Egg Depot, for instance, considers that it is impossible to market their eggs at under 6d. per dozen overhead charges which does not compare favourably with the 1d. per dozen of the storekeeper in the same village. It must, however, be pointed out that this depot sent all its eggs by passenger train because of ignorance of the perishable goods train.

The total expenses to the average storekeeper is :—

Railage.....	1s. 3d. per 30 dozen.
Empty returns.....	0s. 3d. „
Box, fillers, etc.....	0s. 3d. „
TOTAL.....	1s. 9d. „

For the country producer, who wishes to send his eggs direct to the central market, the cost of marketing is a different problem altogether. This is probably one of the greatest reasons why many producers prefer to sell to the country storekeeper. Not only are transport and commission charges high, but due to the fact that only small boxes are used, breakage is heavy and this adds considerably to the marketing costs. Consequently the fear that the price at the terminal market will be absorbed by overhead expenses prevents the direct movement of eggs to terminal markets from the producer. The small producer with his six, nine or twelve dozen box must always pay the minimum railway charge both on the eggs and on the empty returns. He has also to pay the minimum commission charged by the agent and still has to pay 6d. exchange on every cheque. All these charges make it practically impossible for the small producer to send direct to the terminal market.

The following figures of marketing costs were supplied by commission agents and include railage commission and breakage. Exchange on cheques and cartage from station to producer are not included.

No. of Dozen.	Percentage Cost of Gross Sales.	Cost per Dozen.	Distance by Rail: Miles.
60.....	16.54	d. 2.2	85
45.....	15.27	2.0	85
18.....	20.09	2.61	85
12 (two boxes).....	25.0	3.25	85
6.....	24.36	3.17	85
18 (two boxes).....	25.93	3.11	80
12.....	21.80	2.83	96
355.....	9.84	1.56	184
73½.....	9.18	2.13	184
45.....	13.82	3.15	184
8.....	20.83	4.38	101
9.....	27.91	4.0	199

The following four cases illustrate the cost of marketing in the case of eggs sold through Commission Agents :—

(a) 2½ dozen at 2s. 6d. ... 6s. 3d.

	s.	d.
Commission (minimum).....	0	9
Table space and handling.....	0	1
Railage.....	0	8
Return (per passenger train).....	0	4
TOTAL.....	1	10

i.e. 8½d. per dozen or 35 per cent. of total receipts.

(b) 15 dozen at 2s. 7d. : 9 dozen Pullet Eggs at 1s. 11d. ... £2. 15s. 10d.

	s.	d.
Commission.....	3	0
Table space and handling.....	1	6
Railage.....	1	0
Return (per goods).....	1	0
TOTAL.....	6	6

i.e. 3½d. per dozen or 12 per cent. of total receipts.

(c) 9 dozen at 2s. 6d. ... £1. 2s. 6d.

	s.	d.
Commission.....	1	3
Table space and handling.....	0	7
Railage.....	1	0
Return.....	0	4
TOTAL.....	3	2

i.e. 4½d. per dozen or 14 per cent. of total receipts.

(d) 12 dozen at 1s. 3d. ... 16s.

	s.	d.
Commission.....	1	0
Table space and handling.....	0	7
Railage.....	1	0
Return.....	0	4
TOTAL.....	2	11

i.e. 3d. per dozen or 18 per cent. of total receipts.

The charges for table space and handling seem unduly high in comparison with the actual expenses.

The figures quoted indicate that the costs are heavier where eggs are sent to the central market by the producer than where they were sent by the storekeeper. In one case where a large consignment of 355 dozen eggs was sent, the expenses were not abnormally high, but comparatively speaking, over the same distance, the smaller consignments were very costly. Although expenses are so high it does, however, not necessarily follow that it will pay the farmer to sell through the storekeeper. The storekeeper may only pay 1s. 6d. per dozen, whereas the producer who sends direct to the terminal market may get 2s. 6d. per dozen for his eggs which are sold as country new-laid.

But these are not yet the total costs of marketing. When eggs are sent on consignment they may be sold to consumers, in which case there are no extra costs. The eggs from the storekeeper and those sold to the wholesaler by the commission agent have still to continue in the process of marketing. All eggs are now tested and graded when intended for export and only tested or in some instances also graded when used for local consumption and storage. This involves a considerable amount of labour. Losses are also incurred through breakage in handling after arrival at the wholesaler. Upon testing a certain percentage of these eggs are found to be unfit for human consumption and a fairly large proportion is of very inferior quality, being stale, dirty and small.

The inferior quality egg can only be sold to bakers or during part of the year exported as "seconds." It is considered by the wholesaler trade that 25 per cent. of the total number of eggs received by the Capetown exporters and 33 per cent. of that received by the Johannesburg exporters are bad or of inferior quality, and it is maintained that out of every four 30-dozen cases received by the Cape exporters, 2 cases are of the 15-lb. pack and over, one case of 13½-lb. and one case not fit for export. Since the export of "seconds" is allowed a certain percentage of these eggs are exported as such. During 1927 this amounted to 10 per cent. of the total export of the traders' eggs.

It is difficult to arrive at actual cost up to the stage when eggs leave the wholesaler. Considering the rent, capital labour wastage, storage and profit to wholesaler, the cost for local consumption up to this stage is at least 2·27d. per dozen.

For every 30-dozen cases the expenses are :—

	s.	d.
(1) Waste :—		
(a) Loss of one dozen bad eggs.....	0	10
(b) Loss on two dozen eggs broken in handling and transport, used for liquid eggs.....	0	10
(c) Loss on seven dozen eggs of inferior quality sold to bakers or exported as "seconds" ..	2	9
(2) Labour.....	1	3
TOTAL.....	5	8

(i.e. per dozen, 2·27d.)

The profit to the wholesaler varies considerably according to season and other factors, but if it is to be taken at the figure of 2s. per case, then the above-mentioned costs would be increased to 7s. 8d. per case or 3d. per dozen.

It is, therefore, evident that, although at first sight the cost of marketing eggs through the country storekeeper appears to be very economical, this is not the case in the end. The eggs sent to market direct by the producer as a general rule do not show waste to any extent through deterioration.

When eggs are exported the charges per 30 dozen are as follows :—

	s.	d.
Freight.....	4	6
Box.....	2	0
Fillers.....	1	2
Woodwool and nails.....	0	2
Waste on bad, stale and small eggs.....	4	5
Labour.....	1	3
Storage—		
Johannesburg.....	1	0
Capetown.....	0	3
Shipping charges, insurance, local agents, etc....	0	10
Railage to coast.....	0	11
Levy and inspection fees.....	1	0
London commission and expenses.....	2	6
TOTAL.....	20	0

Exporters from the coast save the following items, compared with inland exporters :—

	s.	d.
Railage on boxes, fillers and woodwool.....	0	10
Railage on eggs.....	0	11
Storage.....	0	6
Waste.....	0	9
TOTAL.....	3	0

These expenses are not the same for every exporter and allowance must be made for the personal element, as some can buy to greater advantage and consequently export at a lower figure. In the case of the egg circles, waste is very small, and would probably not amount to more than 1s. per case.

To the above expenses we must now add the expenses of the local storekeeper, i.e. 1s. 9d. per case, and a profit to the exporter which is considered to be approximately 3s. per case, and assuming, which is undoubtedly the case, that the local storekeeper takes no profit, the total cost of marketing eggs from inland centres for export is 24s. 9d. per case or 9·9 pence per dozen, and for coastal towns, 21s. 9d. or 8·7 pence per dozen.

Having these figures, it is now possible to work out the percentage cost of marketing for export trade.

Total income from eggs exported (i.e. 1927) :—	£
122 cases of duck eggs at 60s. per case.....	366
2,558 cases of eggs, 17-lb. pack, at 58s. per case	7,418
5,246 cases of eggs, 16-lb. pack, at 55s. per case	14,427
64,708 cases of eggs, 15-lb. pack, at 52s. per case	168,241
30,318 cases of eggs, 13½-lb. pack, at 43s. per case	65,184
2,418 cases of eggs, smalls pack, at 37s. per case	4,368
6,068 cases of eggs, seconds pack, at 31s. per case	9,406
TOTAL.....	£269,409

Total expenditure on eggs exported :—

66,731 cases from coastal towns at 17s. per case.....	£ 56,721
44,705 cases from inland towns at 20s. per case..	44,705
68,533 cases from country storekeepers and others on which the local costs are 2s. per case *.....	6,853
40,680 cases from Egg Circles. Local costs on these amount to approximately 3s. 6d. per case, but this is already included above as the waste on egg circle eggs is 3s. 6d. less than on traders' eggs.	
Profit on 68,533 cases exported by traders at 3s. per case.....	10,280
TOTAL.....	£118,559

* This figure is taken at 2s. per case and not 1s. 9d., as a certain percentage of eggs exported by traders are obtained from producers who send direct to market in small consignments and consequently at higher marketing costs.

i.e. 44 per cent. of the total receipts is absorbed by the marketing costs. This means that the producers only receive £269,409 less £118,559. : i.e. £150,850 or 10·82 pence per dozen eggs during the export season.

The profit taken by the wholesaler who only sells locally is a very difficult matter to judge and everything depends upon circumstances and the time of the year. When eggs are plentiful a small profit is taken, but during the scarce season they aim at higher profits, and it is simply a question of demand and supply. It is, however, the general idea among the country storekeepers that the wholesalers take excessive profits at their expense. The wholesalers cold store many eggs for winter consumption. This involves a considerable amount of risk, ties up capital for many months, and there is much extra labour connected with this as all the eggs must again be unpacked, tested and repacked. Profit or loss in this instance all depends upon the correct judgment of future prices, and it has been known that heavy losses as well as excessive profits have been made by various people in the same season. Overseas prices have some effect on the price of storage eggs and this must also be taken into consideration. The wholesaler mostly contracts for the supply of eggs to large institutions such as biscuit factories, bakeries, hotels, etc. They also supply a certain class of retail trade, mostly where fresh eggs and not new-laid eggs are wanted, as well as the fresh eggs required by the first class retail trade. Some of the wholesalers are also manufacturers of liquid eggs, but they have found it difficult to compete with the imported liquid eggs and with local cold storage eggs in shell.

In the retail trade the cost of distribution also varies considerably. Everything depends upon the class of retailer and the class of business done. It does not cost the fruit and confectionery shop much to sell eggs as the customer takes the eggs away with him in a paper bag at his own risk. This class of retailer can sell at less than the highly specialised grocer who has to pack his eggs in a carton box, costing him 1d. each, and who has to deliver eggs many miles away, taking the risk of breakage upon himself. The leading grocers who cater for the first class trade do not sell eggs at less than 6d. per dozen over cost price and during the scarce season this may be increased to 9d. per dozen. All first class grocers in Johannesburg agree that they must realise 6d. per dozen on an average to make a profit. The cost of distribution, breakage, cartons, etc., all add to the expenses. Retailers in the poorer centres work at a much smaller profit; in most cases from 2d. to 4d. per dozen. In some big centres even the first class trade work on a margin of 3d. or 4d. per dozen.

The main cause for the high retail costs in Johannesburg and some other centres is due to the method whereby retailers buy eggs direct from producers. A big retailer in Johannesburg, when asked whether it was not possible to work on a smaller margin than 6d. per dozen, said: "I prefer not handling eggs as they show a loss on a twelve months account, taking into consideration the months when eggs are a glut on the market. Often we actually lose 3d. per dozen on selling them." This loss is explained as follows: "During the months August to October inclusive, we have never paid less to our producers than 1s. 4d. per dozen and have sold these eggs for preserving purposes as low as 1s. 1d. per dozen, the reason being to obtain the goodwill of our suppliers and ensure their output during the months January to June inclusive."

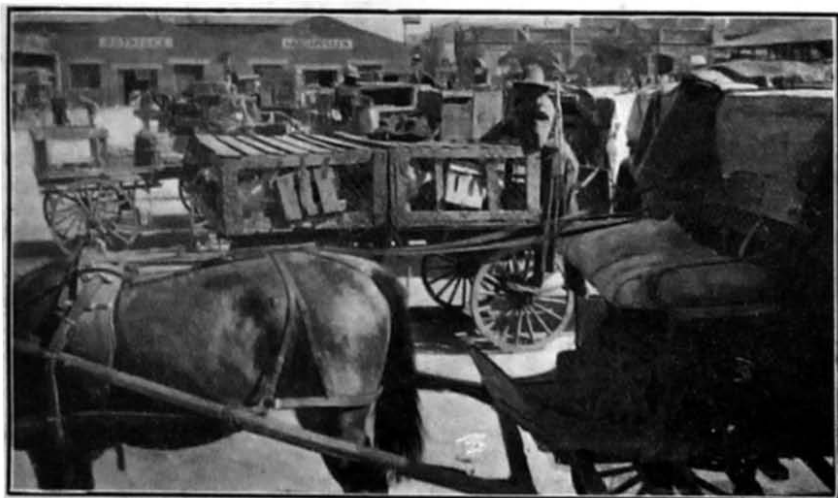
This explains the high cost of distribution of eggs in the large centres, and as long as this method is continued the consumer will have to pay high prices and consumption be checked.

Summing up, the cost of marketing is as follows :—

- (a) Country storekeeper to wholesaler, 3d. per dozen.
- (b) Wholesaler's expenses for local sale, 2·27d. per dozen.
- (c) All costs for export, from 9d. to 10d. per dozen.
- (d) Producer to open market, 3d. per dozen.
- (e) Retailer to consumer, from 2d. to 6d. per dozen.
- (f) Producer-Wholesaler-Retailer-Consumer, from 5d. to 9d. per dozen.

The process of marketing eggs in the Union is therefore a very costly one. The main obstacles in the way of a more economical marketing of eggs are :—

- I. Excessive deterioration when marketing eggs in bulk through the storekeeper.
- II. Heavy overhead charges when marketed in small quantities by individual producers.
- III. Heavy distribution charges by retailers.



JOHANNESBURG MUNICIPAL MARKET.—A typical method of conveying poultry from the market by purchasers.

The prices paid by the country storekeeper compare very favourably with those realised on the central markets. During 1927 the country storekeeper paid from 6d. to 2s. 6d. per dozen, while the Johannesburg market paid from 5d. to 2s. 6d. per dozen for fresh eggs. Only in very exceptional cases do eggs drop to 6d. or 7d. per dozen in the country during the season. The lowest price as a rule is 8d. per dozen, which compares very well with the average lowest price of 8½d. of the Johannesburg market. The average price paid for fresh eggs on the Johannesburg market only amounted to 1s. 1½d. per dozen. The fact, however, must not be ignored that the country prices are trade and not cash prices.

POULTRY.

The marketing of poultry, both to the storekeeper and to the producer who sends direct to the terminal market, is an expensive problem. While the country storekeeper awaits the arrival of more poultry so as to have sufficient to fill a few crates, the birds have to be fed and require a certain amount of

attention. The crates, on an average, cost from 8s. to 10s. each, and very often do not last more than three or four months. As the crates are bulky and heavy the railage on them is often more than the railage on the birds, and the railage on the empty returns is consequently very high as well. Deaths on rail are frequent occurrences and this all adds to the cost of marketing. Storekeepers, 300 miles from the market, state that it is impossible to market poultry at less than from 7d. to 9d. per bird. Fifteen per cent. of the gross returns are often taken up by railage on birds over short distances and to this must still be added commission, which is in most cases 10 per cent. (5 per cent. to market master and 5 per cent. to agent), mortalities and depreciation on crates. Prices paid for poultry in the country are therefore much lower than at the terminal markets.

The following are specific instances of railage only, taken from a wholesaler's books:—

<i>Distance Travelled.</i>	<i>Percentage of Railage of Total Receipts.</i>
Miles.	Per Cent.
167	15
147	15
139	12½
135	12½
99	10
55	8

The following particulars were taken from the books of commission agents and storekeepers:—

No. of Poultry.	Receipt per Bird.	Cost per Bird.	Distance.
	s. d.	s. d.	Miles.
19 Ducks.....	3 4	0 4	4
6 Turkeys.....	16 0	2 4½	135
10 Turkeys.....	6 7½	0 9	135
16 Ducks.....	2 4	0 4	135
22 Fowls.....	—	0 3·2	102
17 Fowls.....	—	0 4	102
42 Fowls.....	—	0 3·2	102

The following figures were supplied by the South African Railways and refer to actual consignments shipped from Newcastle to Durban, a distance of 268 miles:—

No. of Poultry.	Weight of Poultry.	Cost of Railage.	Cost of Cartage.	Cost of Empty Returns.	Total	Cost per Head.
	lb.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	d.
252 Fowls.....	1,480	4 2 7	0 2 6	0 6 0	4 11 1	4·3
255 „.....	1,350	3 15 5	0 2 3	0 6 6	4 4 2	4·0
189 „.....	1,298	3 12 5	0 2 2	0 4 0	3 18 7	5·0
92 „.....	738	2 1 1	0 1 4	0 2 0	2 4 5	5·8
30 „.....	205	0 11 5	0 0 4	0 1 0	0 12 9	5·1
22 „.....	168	0 9 3	0 0 3	0 1 0	0 10 6	5·7
20 „.....	150	0 8 5	0 0 3	0 1 0	0 9 8	5·8
19 „.....	110	0 6 2	0 0 2	0 1 0	0 7 4	4·6
15 „.....	107	0 6 0	0 0 2	0 1 0	0 7 2	5·7
9 „.....	82	0 4 7	0 0 2	0 1 0	0 5 9	7·7
16 Ducks.....	86	0 4 10	0 0 2	0 1 0	0 6 0	4·5
15 „.....	140	0 7 9	0 0 4	0 1 0	0 9 1	7·3
9 „.....	100	0 5 7	0 0 2	0 1 0	0 6 9	9·0
9 Turkeys.....	103	0 5 9	0 0 2	0 1 0	0 6 11	9·2

It is quite clear that the expenses on live poultry are excessive, because if to the above charges were added the usual 10 per cent. commission, losses in deaths en route, food and depreciation on crates, it would be evident that the marketing costs are very high.

The following are the returns of dead poultry handled on the Johannesburg market during the year 1927 :—

	No.	Percentage of Total No. of Poultry Received on the Market.
Fowls.....	7,630	1.02
Ducks.....	636	0.80
Geese.....	89	0.36
Turkeys.....	344	0.66
TOTAL.....	8,699	0.96

On the Durban Market the percentage of the deaths appear to be much less :—

Fowls.....	0.5
Ducks.....	0.12
Geese.....	0.08
Turkeys.....	0.06

Deaths mostly occur when poultry is shipped a long distance and when they are not properly cared for. This is decidedly proved by the above figures, as Johannesburg Market gets much more dead birds than Durban, where the birds are shipped over shorter distances.

With eggs, it is possible to work out the costs per dozen eggs which, comparatively speaking, is a good standard to work on, but in the case of poultry there is no standard to work on whatever. It is consequently practically impossible to give the cost of marketing of poultry as one has to take size, quality, distance from market, weight of crates, etc., into consideration and the variation is much greater than in the case of eggs. It is therefore equally difficult to give average prices, considering the fact that fowls range from 9d. to 6s. on the markets.

Once the birds are sold on the municipal market or are in the hands of the wholesaler, they must still be prepared for the retail trade. This involves killing, dressing, storing, distribution, financing, etc., which adds considerably to the cost of marketing. In one case a farmer sold prime fowls in the Orange Free State at 3d. per lb. live weight. The retail price in Johannesburg was 1s. 6d. per lb. and the producer therefore only received 16.6 per cent. of the price paid by the consumer. This is an exceptional case, but, with the exception of turkeys, the country producer hardly ever gets over 25 per cent. of the final selling price for poultry.

Some produce merchants, even though situated at long distances from the market, have established a very fine trade in dressed poultry, which they maintain is the only way to market poultry, where one is far removed from the central market. The birds are killed, dressed, wrapped in grease paper, and packed in non-returnable boxes and are despatched by passenger train to hotels or large consumers, who either pay contract price or advise periodically what they are prepared to pay. This method of marketing poultry appears to be very satisfactory, especially in the winter when birds can be cooled and packed without refrigeration. During summer, however, unless the distance

is very short and the train travels overnight, it is necessary to pack the birds in sawdust and ice. Dealers who dispose of poultry in this way seem to work on a 6d. per lb. margin. Fowls are bought at from 3d. to 4d. per lb. and sold at from 9d. to 10d. per lb., while turkeys are bought at 6d. per lb. and sold at 1s. per lb. In one particular instance where there was a fair amount of local trade, a produce merchant who gave special attention to eggs and poultry made a profit of £240 on a turnover of £910 for twelve months, i.e. a net profit of 26·4 per cent. Fowls were bought at 3d. or 4d. per lb. and the cost of dressing and packing amounts to 2d. per bird or approximately ¾d. per lb., and railage varies with distance from market. Everybody marketing poultry in this way reckons that it pays much better than to sell them alive. There is no risk that any of the birds may die en route, but on the other hand a delay on the railway may cause a loss of the whole consignment, but no such instance, however, came to notice in the investigation.



DEAD POULTRY ON THE NEWTOWN MARKET.—On an average 30 head of poultry per day are removed to the abattoir, where they are converted into fertilizer, and on some days this number amounts to over one hundred.

The ruling price for poultry during 1927 was :—

FOWLS—Country price, 9d. to 1s. 9d. per bird.

Johannesburg average lowest and highest, 1s. 0½d. to 4s. 10d.

Johannesburg average, 2s. 11d.

DUCKS—Country price, 2s. each.

Johannesburg average lowest and highest, 1s. 5½d. to 4s. 6½d.

Johannesburg average, 2s. 11d.

TURKEYS—The country storekeeper pays by weight whereas the municipal markets sell per head, and it is difficult to compare prices. The following figures are country average and Johannesburg wholesale prices :—

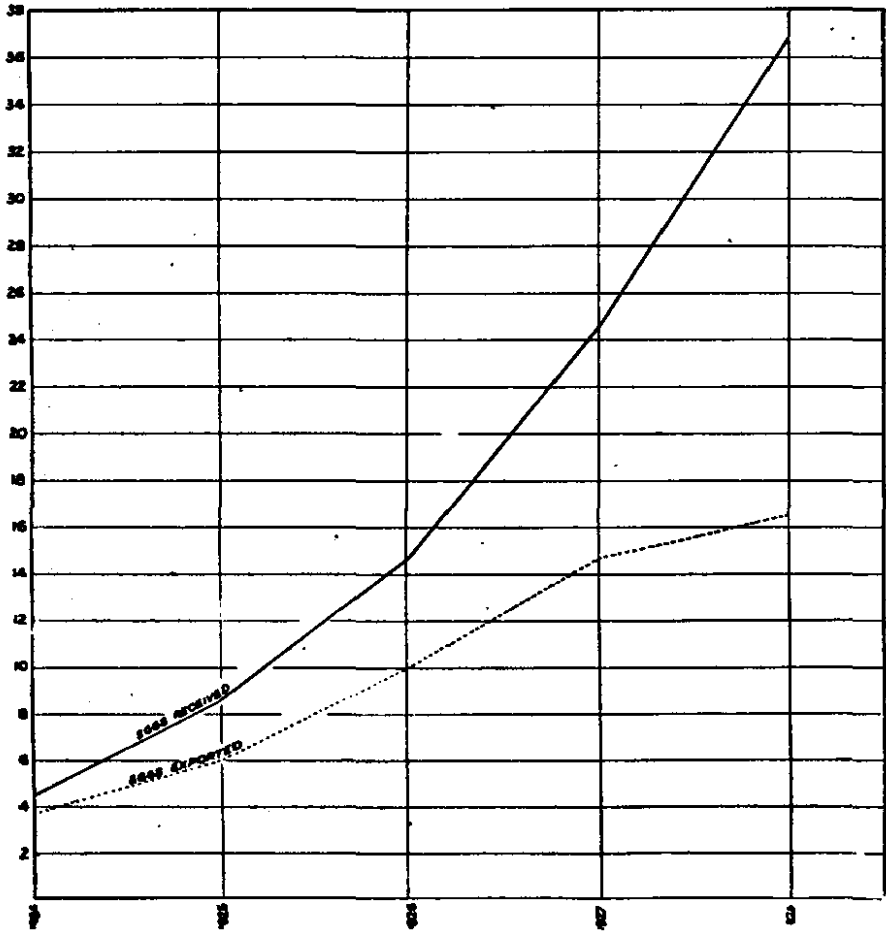
Country, 6d. to 7d. per lb.

Johannesburg, 8d. to 1s. per lb.

PART V.

CO-OPERATIVE MARKETING.

Very few branches in agriculture have met with greater success in co-operation than that of the egg industry. In a comparatively short period over 38 per cent. of the total export of eggs in the Union was captured and the circles are even yet making rapid progress. In their course of development co-operative societies have encountered serious setbacks, the result mainly of



Eggs received and exported by Co-operative Egg Circles in Millions.
(Note that the local demand for tested and graded eggs is increasing rapidly and the circles are exporting a smaller proportion of the total receipts.)

inexperience. The members of such societies have lost money as well as confidence, in many instances, but most of them have realised the temporary nature of their difficulties and believed that all the difficulties would eventually be overcome. This is exactly what has happened and the six existing Egg Circles are now giving satisfactory results.

The growth of co-operative marketing is clearly indicated by the following figures:—

EGGS RECEIVED.

	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Natal Co-operative Egg Circle, Ltd.....	1,212,666	2,656,209	4,420,956	8,372,479	12,976,337	15,834,571
Cape Egg Circle, Ltd.....	1,765,605	2,395,115	3,628,034	6,017,588	8,926,962	11,623,908
Transvaal Co-operative Egg Circle, Ltd.....	—	1,756,080	3,011,498	5,234,184	6,999,312	8,175,036
East London & Border Poultry Products, Ltd.....	415,973	554,114	1,221,626	2,127,379	3,339,528	4,693,369
Algoa Poultry Exchange, Ltd.*.....	1,077,696	1,141,380	1,105,032	1,563,528	3,909,522	5,148,574
O.F.S. Co-operative Egg Circle, Ltd.....	—	—	1,217,364	1,078,911	608,447	2,758,787
	4,471,940	8,502,898	14,604,460	24,394,069	36,760,108	48,234,245

* Joint figures of Addo Poultry Exchange, Ltd., and P.E. Co-op. Egg Circle, Ltd. (see note *, next table).

EGGS EXPORTED.

	1922	1923	1924	1925	1926	1927	1928
Natal Co-operative Egg Circle, Ltd.....	—	532,800	889,200	1,542,960	3,262,320	5,323,320	6,165,720
Cape Egg Circle, Ltd.....	504,720	955,440	1,195,920	1,727,640	3,080,160	3,998,000	4,070,160
Transvaal Co-operative Egg Circle, Ltd.....	12,240	173,160	609,120	1,215,000	1,532,160	1,933,920	1,600,200
East London & Border Poultry Products, Ltd....	—	32,400	199,800	486,000	981,000	1,511,840	2,047,680
Algoa Poultry Exchange, Ltd.*.....	21,480	111,960	126,000	113,400	236,880	1,270,440	1,581,480
O.F.S. Co-operative Egg Circle, Ltd.....	—	99,720	599,400	612,360	392,040	609,480	1,098,360
Port Elizabeth & District Co-operative Poultry Products, Ltd.†.....	—	173,880	48,240	259,200	519,120	—	—
Kirkwood Co-operative Poultry Exchange, Ltd....	—	—	17,280	37,800	—	—	—
	538,440	2,079,360	3,684,960	5,994,360	10,003,680	14,644,800	16,563,600

* Operated as Addo Poultry Exchange, Ltd., till middle of 1927, when it changed its name and transferred its Headquarters from Addo to Port Elizabeth and accepted as members a large number of members of the P.E. Co-op. Egg Circle, Ltd., which, as a result of a round-table conference between the two circles, had decided to go into liquidation.

† See note *.

A very interesting feature revealed by these figures is the fact that the rate of increase in the export has not been proportionate with the rate of increase in quantity of eggs received. This shows that the local sales of the Egg Circles has increased considerably and that therefore a demand for the tested and graded egg supplied by these organisations has been created and is further developing. In one case in 1928, the Circle actually was able to export less than during the previous season because of the increase in its local sales.

MEMBERSHIP.

Increase in membership is equally noteworthy, as is apparent from the following table :—

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Natal.....	161	259	465	654	785
Cape.....	466	635	852	1,039	1,200
Transvaal.....	144	277	411	476	498
East London.....	—	127	232	336	417
Algoa Poultry Exchange.....	43	46	57	250	304
Orange Free State.....	—	246	282	417	593
TOTAL.....	814	1,590	2,299	3,162	3,797

Both in membership and in number of eggs received, the yearly development has been most satisfactory, and the end would not yet seem to have been reached. It is, however, not likely that the whole industry will eventually become co-operative since there are obstacles in the way to membership in the case of the small producer.

Notwithstanding the above-mentioned development, only a relatively small number of producers are as yet members of co-operative Egg Circles, whose number in June, 1928, amounted to only 3,797. If it were possible to allow the small producer, with his few dozen eggs per week, to join the Egg Circles the way would be paved for a wonderful advance in the course of a few years, and it is not unlikely that the Circles would, within a very short period, have the monopoly in the egg and poultry trade.

Under the existing system a farmer must in order to become a member invest a minimum of from £1 to £5 in shares according to the Circle he desires to join. This amount can, however, be paid by instalments.

A considerable sum of money has to be invested in utility egg boxes which are usually very expensive. Expenditure is also incurred in locks, stamps, new flats and fillers. Railage and commission charges prove abnormally high to the small producer and breakage more often than not excessive. The overhead charges to the small producer, or in other words, the general farmer, who is interested in poultry as a side line, is without doubt high. This is one reason why the Transvaal Co-operative Egg Circle has decided not to admit members living far from Johannesburg unless they have at least 100 birds. The general farmer also objects that he has to wait some weeks for his first cheque and one month for all subsequent cheques.

The present method, therefore, would appear in some respects inconvenient and not to give full satisfaction to all poultry producers. The small producer finds the initial expenses necessary to join the Circle a difficulty, and as he is dependent upon his few fowls for the purchase of his coffee, sugar, rice, etc., he objects to deferred payments. From the Circle he cannot obtain this cash, whereas the storekeeper, not giving him any cash for his produce, gives him a



Grading eggs for export at a Co-operative Egg Circle.

cash equivalent in the nature of groceries, etc. The farmer who does not seem over anxious for extra work finds this method very convenient. Instead of packing his eggs properly, and taking them to the station for despatch to the Egg Circle, he leaves them at the store and is prepared to take what is offered him.

In fairness to the Egg Circles, it should be stated that this question of the inconvenience of deferred payment is easily exaggerated. It is, however, not necessary here to try to answer that objection—the fact is that, whether it be well-founded or not, farmers do raise it as an excuse for not joining an Egg Circle.

To summarise it may be said that the small producer or average farmer prefers not to join an Egg Circle because of the :—

- (a) Initial outlay.
- (b) Heavy overhead charges for small senders.
- (c) Method of monthly payments.
- (d) Inconvenience.

These difficulties could to a large extent be overcome, it would seem, by the reduction of the value of shares to a mere nominal figure, e.g. 5s., and by requiring members to hold shares in proportion to volume of business they supply to the Circle; by the establishment of local depots; and by cash weekly advances and monthly final payments.

With the establishment of depots and reduction of share capital and other initial expenses, even the producer of three or four dozen eggs per week could join the Circle. In fact every producer would be in a position to become a member of an Egg Circle. Depots would relieve the small producer from buying his own boxes, packing his own eggs, taking them to the station, making out consignment notes and general heavy charges which are invariably connected with small consignments. All that he would have to do is to deliver his eggs at the depot instead of to the storekeeper, wait until the eggs are weighed and and tested obtain his receipt for the weights of new-laid and fresh eggs.

Weekly instead of monthly payments would probably involve financial difficulties in the beginning. But considering the benefit to be derived from it, it would seem desirable that Egg Circles try to come to some arrangement with the Land and Agricultural Bank or some other financial institution whereby they could meet the demand of the small producer. Railway charges would be very small and only in exceptional cases would it be over $\frac{1}{4}$ d. per dozen. A further advantage would be that if a Circle had many depots on the same line, a special truck would be available for the conveyance of their eggs only. During the export season eggs shipped from the depots would be conveyed at export rates, which would be a further saving during the time of the year when the production is heavy and prices low and economy absolutely essential. Breakage would be reduced to a minimum as a standard box only would be used and the eggs would be packed by people who understood how to do it.

All costs should be borne by the members of the depot itself, in proportion to supplies. This would encourage thrift and the members would do their best to keep costs as low as possible. As the eggs are graded and tested it would eliminate practically all expenses at the central depots, where only a small selling commission should be charged. The administration should be done by local committees under the supervision of the Egg Circle concerned. A committee of, say, three could then be appointed to assist and supervise the manager of the depot. The ordinary routine work should be done in a manner as suggested by the Egg Circle. The manager of the depot should be capable of testing, weighing and grading all eggs received. He should further be in a position to keep all book records according to a system laid down by the Egg Circle.

METHOD OF PAYMENT.

If proper care and attention be not given to financial arrangements, it may be a great danger point, and it is for this reason that a departure from the ordinary system of payments through the depot manager may be advisable. If the manager of a depot is to be in charge of all money transactions, which may amount to thousands of pounds monthly, he should necessarily be a highly paid man and so the depot system would become too expensive. Economy combined with efficiency should be the main object of the depot system. To attain this object, it may be advisable to solicit the co-operation of some other party and induce him to administer the financial side of the depot on behalf of the Egg Circle. From information gathered, it would appear that most storekeepers would be willing to undertake this duty. The system would be the following :—

The manager of the depot would prepare a weekly statement of payments to be made to members. This statement would be forwarded to the Circle, where the total weight would be checked with the weight of the eggs received for that week and, in so far as may be necessary, the details would also be checked by the Circle. One cheque would then be forwarded to the depot manager (or storekeeper where there is one to administer the financial activities of the depot), who would then make payment to members.

In thus dividing the depot system into two distinct parts, viz., (1) the handling of the members' produce through the depot manager and (2) payment of all moneys through the storekeeper, it would be possible to run the depot system very economically and at the same time minimise all financial risks.

With regard to the actual expenses at each depot, local conditions would always have to be considered. It is, therefore, very difficult to estimate what the actual expenses would be at the various depots. The personal element and the volume of trade are two of the main considerations. With the introduction of standard grades on the lines suggested in the chapter on standardization, the Egg Circles would have a golden opportunity of establishing depots, and provided the system is properly organised there would be little doubt that they would have the monopoly in the egg trade wherever a depot is established. At present most Circles handle new-laid eggs only, although there is a considerable demand for fresh eggs as well. If all eggs were handled, the expenses at most of the depots should not be more than from $\frac{1}{4}$ d. to $1\frac{1}{4}$ d. per dozen.

The following are the railway returns for eggs handled at twenty of the largest producing centres in each Province. 35 per cent. of the total weight of the eggs was deducted to represent the weight of containers and the monthly income was based on 1d. per dozen, taking each egg to weigh $1\frac{1}{2}$ ounces.

Station.	Tons.	No. of Eggs Loaded.	Income per Month at 1d. per Doz.
CAPE—			
Bredasdorp.....	259	3,078,400	89·07
Barkly Bridge.....	204	2,424,688	70·16
Riversdale.....	187	2,222,629	64·31
Moorreesburg.....	181	2,151,314	62·25
Addo.....	155	1,842,286	53·31
Robertson.....	105	1,248,000	36·11
Caledon.....	103	1,224,229	35·42
Harmon.....	101	1,200,457	34·74
Gouda.....	100	1,188,571	34·39
Aashton.....	87	1,034,057	29·92
Albertinia.....	86	1,022,171	29·58

Station.	Tons.	No. of Eggs Loaded.	Income per Month at 1d. per Doz.
CAPE (Continued)—			
Alexandria.....	81	982,743	27·86
Vredenburg.....	72	855,711	24·76
Drew.....	70	832,000	24·07
Malmesbury.....	70	832,000	24·07
Baakens River.....	69	820,114	23·73
Sandflats.....	68	808,229	23·39
Napier.....	68	808,229	23·39
Berg River.....	68	808,229	23·39
Moravia.....	67	796,343	23·04
Average.....	—	—	37·85
ORANGE FREE STATE—			
Brandfort.....	159	1,889,829	54·68
Steynsrust.....	158	1,877,943	54·34
Heilbron.....	152	1,806,629	52·28
Senekal.....	146	1,735,314	50·21
Bothaville.....	144	1,711,543	49·52
Hennenman.....	139	1,652,114	47·80
Kroonstad.....	124	1,473,829	42·65
Parys.....	119	1,414,400	40·93
Frankfort.....	109	1,295,543	37·49
Villiers.....	109	1,295,543	37·49
Lindley Road.....	102	1,212,343	35·08
Kopjes.....	102	1,212,343	35·08
Reitz.....	94	1,117,257	32·33
Vrede.....	93	1,105,311	31·98
Theunissen.....	84	998,400	28·89
Clocolan.....	83	986,514	28·54
Harrismith.....	76	903,314	26·14
Marquard.....	73	867,657	25·11
Winburg.....	73	867,657	25·11
Petrus Steyn.....	73	867,657	25·11
Average.....	—	—	28·04
NATAL—			
Paddock.....	382	4,540,343	131·38
Port Shepstone.....	204	2,424,686	70·16
Umzinto.....	122	1,450,057	41·96
Izotaba.....	116	1,378,743	39·89
Winterton.....	107	1,271,771	36·80
Ennersdale.....	87	1,034,057	29·92
Newcastle.....	86	1,022,171	29·58
Waschbank.....	82	974,629	28·20
Maritzburg.....	72	855,771	24·76
Bergville.....	71	843,886	24·42
Fawnleas.....	70	832,000	24·07
Eston.....	65	772,571	22·35
Donnybrook.....	65	772,571	22·35
Wartburg.....	64	760,685	22·01
Elands kop.....	61	725,029	20·98
Umzumbi.....	59	701,257	20·29
Izingolweni.....	58	689,371	19·95
Greytown.....	55	653,714	18·92
Cato Ridge.....	54	641,829	18·57
Schroeders.....	51	606,171	17·54
Average.....	—	—	33·21

Station.	Tons.	No. of Eggs Loaded.	Income per month at 1d. per Doz.
TRANSVAAL—			
Schweizer Reneke.....	94	1,117,257	32·33
Bethal.....	83	986,514	28·54
Maquassi.....	75	891,429	25·79
Standerton.....	65	772,571	22·35
Bloemhof.....	63	748,800	21·67
Leeuwdoorns.....	61	725,029	20·98
Greylingstad.....	52	618,057	17·88
Delarey.....	48	570,514	16·51
Val.....	48	770,514	16·51
Vermaas.....	47	558,629	16·16
Morgenzon.....	44	522,971	15·13
Middelburg.....	44	522,971	15·13
Klerksdorp.....	42	499,200	14·44
Ermelo.....	39	463,543	13·41
Amersfoort.....	39	463,543	13·41
Balfour North.....	38	451,657	13·07
Koster.....	38	451,657	13·07
Estantia.....	37	439,771	12·72
Trichard.....	36	427,886	12·38
Average.....	—	—	17·97

With the exception of the Transvaal, these figures appear to be very favourable to the establishment of depots, as very few depots would cost more than £20 or £25 per month.

It would be an excellent scheme if a whole area could be organised systematically, and for this purpose the services of the officers of the Department of Agriculture should be of great value. It is essential that a definite marketing policy be developed, but systematic organisation and propaganda are of vital importance to their application.

If the depot scheme is to be the adopted policy, then it would be advisable to let the proposed manager spend a month or more with the Egg Circle. The particular area which the depot is about to serve should be organised and every producer of eggs personally canvassed after a general meeting has been held. The object should be to get every producer, small or large, to become a member and to give him all the required information as well as free his mind of all doubt and suspicion.

By the time the manager has been sufficiently trained at Head Office, the whole area should be well organised and everything should be ready for the commencement of the depot. An officer of the Department of Agriculture, or a representative of the Egg Circle should remain at the depot for a week or longer until he is absolutely sure that the manager understands his work, and that the whole system works smoothly. When the first consignments arrive at the Circle, all the eggs should be thoroughly tested for quality and grading and reports should be sent to the depot. Once the management is satisfied that the depot manager is capable of doing his work, only a percentage inspection should be carried out. Various areas could be organised in succession.

The advantages of this system are approximately the same as those discussed under Standardisation, with the addition that there will be whole co-operation without any legislation whatever. The system should be quite practical and overhead charges should be decreased considerably, if not in actual handling, then at least in waste and deterioration.

PRESENT DEPOT SYSTEM.

The Cape Egg Circle is the only Circle which has, up to the present, realised the advantages of depots. These depots, of which there are approximately twenty, cannot be said to be a great success, probably due to the fact that they are not conducted on the right lines, so as to bring in even the smallest producer, and eggs instead of being handled less are handled more. These depots have, however, been of great assistance to the producers, especially the small ones, in the saving of railage and in enabling them to ship their eggs more frequently.

The methods adopted at the depots vary, but the following is more or less the procedure. One person at each centre is appointed to receive, pack and despatch eggs, or only to receive and despatch. In the first instance the eggs are weighed and the eggs from different members are placed in the same box and despatched. At the Circle, the eggs are all tested and although mixed it is easy to judge whose eggs are good or not as they are all numbered. With regard to breakage, the position is different. As all the eggs are in one box, it is unfair to debit all the broken eggs against the accounts whose numbers are on them, but this is exactly what is done. This is one of the main sources of trouble. Furthermore at some depots, the larger producers are required to pack their own eggs before they send them to receivers, but still have to pay the same commission as the small man who sends his eggs in a basket. This has also been a cause of complaint and consequently, although there may be a depot at a certain centre, many producers may still send eggs away on their own. The greatest advantage of this scheme is that the small producer can send his eggs away more often than when he sends on his own, and that he saves railage by sending together with other people, but on the other hand he has to pay at least 1d. per dozen commission. There seems to be a great lack of uniformity and constant dissatisfaction among some of the members.

At some of the depots eggs are received only for collective despatch and so railage is saved to the smaller as well as to the larger producer. But because the boxes are essentially of the small type, breakage is often very heavy, especially on lines where transshipment at one or more points is necessary.

The Cape Egg Circle has, however, made a start with depots and it has through this in many respects done a great deal for its members, as it even allows a reduction of shares when members send through a collecting depot. This Circle should, therefore, be in a position to make a great success of depots run on the lines suggested in this report, as it has several areas where the production is large and some of these centres have some experience already.

CO-OPERATION AND THE COUNTRY STOREKEEPER.

The value of the country storekeeper for the development of co-operation in the Union is probably overlooked. The storekeeper is not against co-operative societies when conducted exclusively for the selling of farmers' produce and in many instances they would even encourage co-operation when these societies are formed solely for the trade in farmers' produce.

All storekeepers, without a single exception, who have been consulted in this matter, are quite willing to go out of the egg trade and act as agents on behalf of the Circles. Some have even offered to pay the cash advances or weekly payments themselves if the Circles are not in a position to do so. There is not the slightest doubt that the country storekeeper would be of great advantage to Egg Circles for the collection of eggs where the circumstances do not warrant a depot, and even where circumstances do warrant this, it may be done more economically through the storekeeper. If the Egg Circles would induce

as many first receivers as possible in the country to act as their agents in collecting eggs, the small producer would soon reap the benefit of this. Instead of buying eggs himself and lose on the transaction, the merchant would much rather receive a $\frac{1}{4}$ d. or $\frac{1}{2}$ d. per dozen commission and act as agent for the Circle. Storekeepers, appointed as agents should receive and weigh all eggs, which are stamped, in say less than 15 dozen lots, pack them into a 30 dozen case and forward them to the Egg Circle. Payments should be made to the storekeeper who has to pay out all members, after deducting his commission. Railage could be paid by the Circle and deducted from the total to be paid to members. The farmers would still come to the storekeeper and buy, or take cash as the case might be, and the storekeeper would have the business just the same. With the present competition among the storekeepers, the writer feels confident that most of them will render this service practically free. The contract with the storekeeper should include the stipulation that when eggs are packed in 15 or 30-dozen boxes, he should forward them to the Egg Circle, but that the commission which he would receive should then go to the producer who packs his eggs. The producers would consequently be anxious to obtain this extra commission and the packing, wherever possible, would be done by the producers themselves.

This method should be by far the most economical as it is very convenient to most producers and the expenses will be small. Provision should, however, be made so that the storekeepers who act as agents would have suitable premises to carry on this business.

This method should be exceptionally useful for adoption with the various settlements and labour colonies. With small share capital and weekly payments there should be no better method for the marketing of these eggs. Boxes should be supplied by the Circles or by the producers sending through the agents. Once an agent is established in a place, nobody should have the right to send eggs to the Circle on his own.

CO-OPERATION AND THE SCHOOLS.

It is always better to instil a principle into a child than to convince a man of benefits to be derived therefrom. If a child learns the value of co-operation at school, he is bound to continue with it when he leaves school, and it is therefore advisable to give him an opportunity to co-operate with others wherever possible.

Teachers, as a rule, take an interest in farming and many of them would be delighted to assist the farmer in the marketing of his eggs, and to teach the children the principles of co-operation at the same time. Schools should therefore be ideal places for the establishment of agencies for Egg Circles. The children have to come to school every day and in this way the eggs could be delivered absolutely new laid. A teacher or a senior student might collect and weigh the eggs as they are brought in by the children before the school commences. The children themselves should pack the eggs into commercial egg boxes and arrangements should be made that these eggs should be railed daily or every second day.

In many instances the farmers would leave the poultry in the hands of the children who would have a great interest in fowls and become acquainted with the proper methods of raising and marketing poultry. For this purpose again capital outlay to the child as well as his parents should be as small as possible, and Circles should endeavour to make special arrangements for the marketing of eggs in this way by supplying standard boxes and making the shares as small as possible. Many children when leaving school would continue with their poultry rather than flock to big centres to find less remunerative work in an office or somewhere else.

School competitions in the production and marketing should prove of interest and even annual shows by the children might in many instances be successful. The great disadvantage to this scheme is the long vacations when it would be impossible to continue with this method and it would be necessary to temporarily make other arrangements.

The Egg Circles have without doubt been started in the right way, but circumstances have now altered and it is also time to alter the methods of the Circles to some extent. The Circles themselves are now well established and while it is endeavoured to do everything on a sound basis, the present system appears to be uneconomical in many cases. There appears to be too much individualism instead of co-operation. It would certainly not be advisable for all Circles to establish depots indiscriminately and alter their present system altogether, but it would be to the benefit of the producers to make provision for the establishment of depots and to assist in their development. In many instances it might be advisable to commence with a collecting agency which eventually would develop into a proper depot where all the testing and grading could be done as well as the receiving and despatching. It is, of course, not assumed that attempts of this nature would always be crowned with success. There would undoubtedly be many failures, but it would appear that eventually depots and collecting agencies would solve many difficulties and encourage the development of co-operative egg-selling. Time and experience would bring about changes and alterations to the present suggested scheme and later on a very practical system of economic marketing of both eggs and poultry should develop from it.

THE HANDLING OF EGGS AT THE CIRCLES.

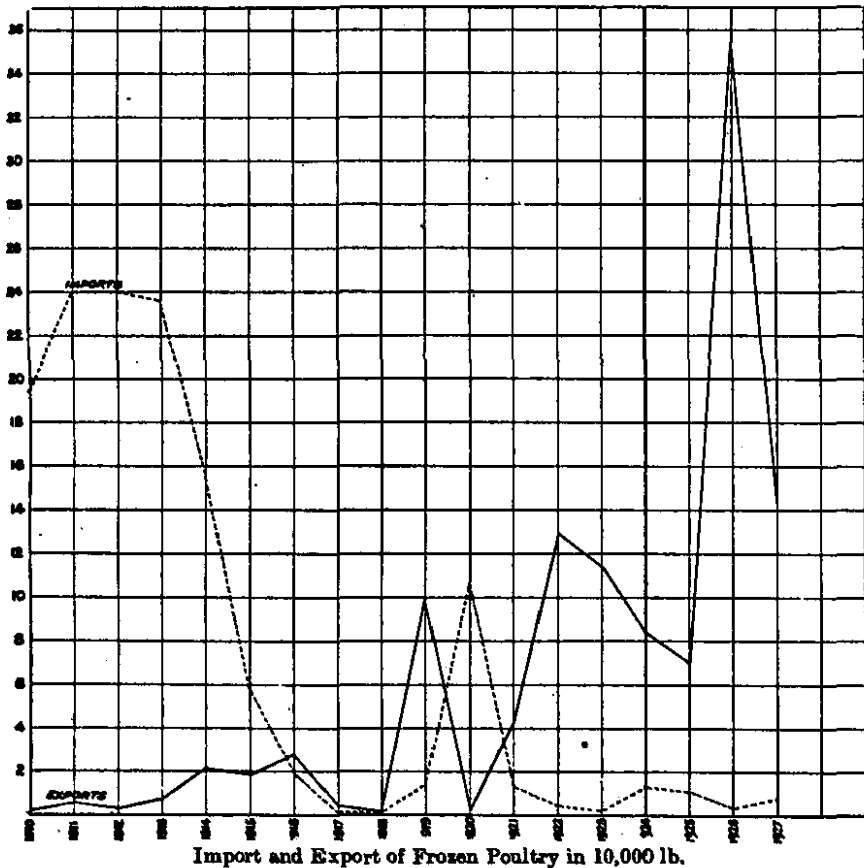
With regard to the actual handling of eggs at the Circles, the position appears to be very satisfactory. The great difficulty is, of course, the irregular supply of eggs during the different seasons of the year. This is the cause of many obstacles to the satisfactory working of Egg Circles which at certain times of the year are absolutely glutted with eggs while at others their receipts are low. It is consequently difficult to organise the staff handling the eggs so as always just to satisfy the demands of a changing volume of business. It is not economical to keep a permanent staff throughout the year as there is not sufficient work for them for approximately six months every year. On the other hand it is not possible to appoint a number of untrained people during the plentiful season and expect them to test and grade properly for they simply cannot do it. This difficulty should, to a great extent, be eliminated by the proper division of labour. A system should be adopted where certain girls should do nothing but testing, others nothing but grading and others again only packing. Skilled labour is required for testing and grading whereas anybody can do the packing. It is, therefore, advisable to appoint on the permanent staff sufficient members to do the testing, grading and packing during the period of low and medium production. During this time the staff should constantly be changed from packing to grading or from grading to testing, so that they are kept in practice for whatever work they might be required to do during the plentiful season when a temporary staff should be used to do the packing only, while the permanent staff should do both testing and grading. This method has already been proved to work satisfactorily by some Circles.

The new egg-grading machine will undoubtedly remove some of the difficulties in connection with this matter.



METHODS OF SELLING.

The quality of the eggs supplied by the Circles have met with general approval. There have been small complaints here and there, but they have emanated generally from opposition who prefer to exaggerate matters. The Circles seem to be aiming at a new laid egg only, the reason being that eggs with the Circles' stamp on it and sold by them as fresh have often been offered to the public by retailers as new-laid. Even eggs that are sold by the Circles as cold stored have in some instances been sold as new-laid. This danger will, however, be overcome if the suggested regulations under standardisation are adopted. There is a great demand for fresh eggs and if Circles would encourage members who can only produce this class of egg, it would be to great advantage to themselves, as well as to the producers of these eggs. It must be remembered that the eggs of all the producers, who do not belong to the Circles, are in direct competition with their own and the more of these producers that can be induced to co-operate with the circles the better will it foster stabilisation of the market.



The largest portion of Egg Circle eggs is disposed of wholesale. Annual contracts at fixed prices throughout the year are made with hospitals, hostels, the South African Railways, etc., and a considerable amount of eggs is disposed of through other large consumers, such as hotels, boarding houses, and retailers. A retail trade is conducted by all Circles in a greater or smaller degree. In some instances the retail trade is well established and those Circles undoubtedly earn an extra income for their members.

The average Egg Circle does, however, not appear to make a big success of its retail trade, which is very small and serves only to aggravate the retailers. Apart from selling on contract to large consumers, the Circles should in the first place emphasise wholesale trade. In exceptional circumstances they might sell retail, but where the retail trade is entered into, great care and attention should be given to it.

It should be remembered that when a Circle also enters into the retail business, it immediately enters into competition with old established retail stores. If the Circle is not in a position successfully to compete with them, it would be better to co-operate and sell its eggs through the recognised retail channels. If Circles retailed eggs over their counters, the retailers could not be expected to buy their requirements from the Circles as they would then really be competitors; as the eggs would be all stamped, it would mean a free advertisement to the opposition, if the retailer were to sell Egg Circle eggs over his counter.

The retail firms now only make a convenience of the Egg Circles, and only buy from them when they cannot get their supplies elsewhere. One of the Circles has endeavoured to make annual contracts with retailers, but without satisfactory results. The cause of the failure is that no firm can enter into an annual contract with the Circle, because they do not know whether they would be able to renew the contract at the end of the year. It would mean that during the first year of the contract the firm would have to surrender its old established customers, who would then at once endeavour to find another outlet for their products.

It would, therefore, seem best that Circles enter into permanent contracts with all the retail firms at a price fixed by the retail price regulated by demand and supply. In other words, the Circles should allow the retailer a margin of say 4d. or 6d. per dozen for retail expenses and profits. With one exception several of the big retailers in Johannesburg interviewed on this matter expressed themselves as satisfied with this scheme. It is maintained that the 6d. retail margin of to-day could be reduced considerably if eggs were bought by the retailer direct from wholesalers instead of from producers, as there would be no risk involved in the transaction. Once some retailers have contracted on this basis, the Circle should hold an extensive advertising campaign and induce the public to buy only guaranteed Egg Circle eggs, produced under ideal conditions. This would reduce the middlemen to two and it could hardly be expected to decrease the number any further. It would mean producer—Egg Circles who only cover bare overhead expenses—Retailer—whose profit is fixed—Consumer.

POULTRY.

Up to the present, hardly any business in connection with the disposal of poultry for its members has been done by the Egg Circles. Lack of capital and proper facilities for the handling of poultry as well as the fact that poultry is a specialised trade, quite apart from eggs, are the main causes for this. Nor does it appear to be advisable for the Egg Circles to attempt to do much in this connection within the next few years. A few big wholesale firms are already well established and acquainted with this trade, and it is advisable to leave it in their hands for the present at any rate. To handle table poultry satisfactorily, the Circles would have to buy or rent premises apart from their egg business where proper killing and, if necessary, fattening plants could be established which would require experts and consequently heavy overhead charges.

This does, however, not mean that the Egg Circles cannot do anything to improve the present unsatisfactory condition of the poultry trade in the Union. On the contrary, they can do a considerable amount to improve the position. As already pointed out, the country farmer only gets from 3d. to 4d. per lb. for his fowls and 6d. per lb. for turkeys, and then they still have to take goods in payment. Most of the wholesalers are prepared to enter into contracts with the Egg Circles to buy all their fowls at 8d. per lb. and turkeys and ducks at 9d. per lb. live weight. It would, therefore, not appear impossible for Circles to enter into contracts with the wholesalers on behalf of their members who could forward the poultry either direct to the contracting firms or through the Circles. If depots or agencies for the collecting of eggs were established on the lines suggested, the poultry could be forwarded direct to the firms and as with eggs, it might be possible to arrange for special poultry trucks for the conveyance of poultry over certain lines on certain days.

POULTRY FOOD.

With few exceptions, the Circles have been of great assistance to their members in the economic purchase of poultry food. It is difficult to estimate the actual savings, but it certainly amounts to thousands of pounds per annum. Not only do the Circles save money to their members, but they have certainly added much to their convenience and reduced their cares in that they can place their order with the Circle who sees that the orders are delivered regularly. Members' accounts are debited with the value of their purchases and the amount due to them on the sale of eggs therefore correspondingly reduced at the end of the month before payment is made to members. The Circles themselves also earn an increased revenue by way of commission.

Cost of production is, of course, not within the sphere of this report, and it is, therefore, not proposed to go fully into the advantages of co-operative buying of poultry food. It is sufficient to state that the country producers have many difficulties in this regard, and the distribution of poultry food through depots is another recommendation for the establishment of these.

PART VI.

STANDARDISATION.

Conditions affecting the market value of eggs are numerous and occur at all stages. Experiments that have been carried out reveal that the chief factor influencing the egg is the condition of the air surrounding it and the principle factors influencing the quality of eggs are decomposition, mould growth, mustiness and change of flavour. The absorption of odours has to be guarded at all stages of transport and storage and material which, even in the dry state, gives off odours should not be brought into contact with eggs at any stage. Odours from fruit are readily absorbed and it has been observed that in the case of fruit tainted eggs, the yolk only acquires the fruit taste. It is stated that the fats in the yolk absorb the odours in a peculiarly selective fashion. With musty eggs it has been found that both yolk and white acquire the musty taste.

The main factors in preserving eggs from changes in quality are extreme cleanliness at the points of production, during all stages of handling, cleanliness of the containers and storage places and the suitable control of the general air conditions.

Everybody engaged in the egg trade prefers to handle eggs of the highest possible quality. There are few firms or individuals engaged in the egg and poultry trade who have not set themselves this object. There is, however, not much hope of obtaining this objective under the prevailing conditions, where there is an abnormally large number of first receivers, wholesalers, retailers, together with a considerable number of speculators.

The first receivers require no capital to start or carry on the business as it is carried on in conjunction with their other business. In fact, they have no interest whatever in the egg business. Credit is given extensively during the export season with the result that there are many engaged as speculators in the egg trade for only short periods each year.

With so many in the poultry business, one would expect very keen competition, and with keen competition, an improvement in the quality of the product. The competition is there, but there is no marked improvement in the quality of eggs and poultry produced. Why? Because the principle underlying the competition is wrong. The main object of the first receiver (i.e. the storekeeper), is not to get the product from the farmer for its own sake, but to collar the custom of the farmer. As already explained, the storekeeper is prepared to lose on his produce account, provided that his customer does not go to the opposition next door.

Although there has been an improvement of eggs in many cases, the producer of the better article does not always benefit in a higher price for that article. He is paid the same price for his ten dozen new-laid eggs as another for his ten dozen fertile and unfertile eggs which have been taken out of the incubator after seven days. Payment is not made on a quality basis, and unless this is done, the farmer will not reap the full benefit of the money spent annually on his education. There are too many first receivers while the principle underlying the competition is not based upon the welfare of the industry, which is detrimental to the producer of a first class product. Every storekeeper is afraid to buy on a quality basis for the farmer in most cases regards it as a personal insult, if the storekeeper tests his eggs and consequently goes to another storekeeper who does not test.

Another reason for the present situation is the complicated nature of the egg business itself. There are many producers, many first receivers and middlemen so that in the ordinary way of business, the product has lost its identity long before the eggs are properly tested and graded. The producer, and for that matter, the first receivers, under present conditions, are not in a position to test and grade with the result that a flat price is paid whether the eggs are good, or bad, small or large.

That a change from existing conditions must come sooner or later is certain, but whether it is as yet practical policy to attempt to enforce complicated regulations, which must necessarily be backed by legislation, in a sparsely populated country like South Africa, is a different question and one which needs careful further consideration.

It nevertheless is a fact that the inferior product adversely affects the price of the superior product because to the average buyer an egg is an "egg," whether it be new-laid or stale. The producer of a first class article is penalised by the indifferent producer. The Egg Circles and certain big producers are doing their utmost to improve the industry, to buy and sell on a quality basis and to standardise their produce, but, unfortunately, they are not assisted, but are penalised by extra expenses only to be undersold by the producer and seller of an "egg" which has been produced, stored and marketed under unhygienic conditions which can be sold at a much lower price than the quality egg.

At present the producer of the first class egg, the country-storekeeper, the wholesaler, the retailer as well as the public, would welcome the organisation of the egg and poultry trade and its establishment on a sound basis. This is absolutely necessary though a very difficult problem. No rules or regulations of any consequence have been adhered to anywhere in the Union in the past with the result that there is no indication as to what are the best rules and regulations. Any regulations adopted must be practical both to the producers and dealers. The variety of people engaged in poultry keeping makes it difficult to get them to adopt definite standards for marketing their produce. A system that will suit one section will probably not suit another. It is, however, clear that a complicated system of many grades and standards must be avoided in the beginning. The object should be to adopt standards which are applicable to all and easily understood by the buying public. The adopted standards should be strictly observed by everybody.



Eggs and fish stored together in a retail fish store.

The objects of the standards should be :—

- (a) To obtain for the producer of a first class article a better price than for the producer of an inferior article, and in this way provide him with an incentive for further improvement and at the same time prevent the production of an unsaleable product.
- (b) To facilitate the process of trade and decrease the cost of marketing. "Standardisation is the first principle of modern commerce. It enables goods to be bought on the faith of their description; it renders valid comparison between lot and lot; between market and market; it is the essential foundation of advertisement."
- (c) To enable the consumer to buy on a quality basis and in this way to encourage increased consumption.
- (d) To stabilise prices and to enable the producer to judge what he will get on the market as the market quotations will convey some information to the poultry man which they do not do at the present.

In order to ensure the strict observance of any regulations, once such have been decided upon, legislation would appear to be essential. There would seem to be little hope of making a success of the scheme unless it be backed by law. It would not receive the support of the country storekeepers, upon which its success would largely depend, unless they have a law to support them. In this connection it must be stated that the experience of Mr. R. Smith, Chief Inspector of Marketing in Northern Ireland, shows that propaganda against the stale and dirty egg did not prove of any benefit until a law had been passed and penalties inflicted on offenders. Numerous other statements of a similar nature could be quoted. As for South Africa, it is to be feared that the farmer as well as the storekeeper would be inclined to take the way of least resistance unless they are forced by law to abide by certain regulations. Moral persuasion and appeals to loyalty would appear of little avail.

In the drafting of standards and regulations for the marketing of eggs and poultry, the following points should serve as a guide :—

- I. To give the producer the full value of his product both as regards size and quality.
- II. To ensure that production, storage and marketing are done under hygienic conditions.
- III. To ensure that the consumer receives value for his money.

On the basis of these considerations, the following regulations may be framed :—

- I. All eggs bought for resale should be paid for either by weight or graded weight.
- II. All eggs sold by retail or wholesale in Johannesburg, Pretoria, Bloemfontein, Kimberley, Capetown, Port Elizabeth, East London, Durban and Maritzburg should be graded into three grades, according to both size and quality (with the exception of cooking eggs which should be sold by weight), into three grades
- III. All eggs should be graded for quality into :—
 - (a) New-laid.
 - (b) Fresh.
 - (c) Cooking.
 - (d) Cold storage and preserved.
 and the sale of dirty, stale and bad eggs should be prohibited.
- IV. Certification of premises for the handling of eggs by wholesalers, and premises for the cold storage of eggs for local consumption.
- V. A standard box or boxes, with fixed weight for the transport of all eggs.
- VI. Payment for all poultry by weight, either live or dressed.
- VII. A standard crate with fixed weight for the conveyance of all poultry.

COMMENTS ON THE ABOVE.

I. *Payment by Weight.*

The reason for suggesting payment by weight as well as by grade is that it is in the first instance not practicable for the small producer to divide his few dozen eggs into several grades when he offers them for sale to the country storekeeper. The storekeeper cannot always examine the farmer's grading.

When the eggs are bought their nett weight can be determined by the difference between the weights of the full containers and its tare. The farmer usually brings his eggs in the same container, on which the storekeeper or egg merchant could mark the tare. He would thus be enabled readily to determine the nett weight of the eggs and thus save time in not having to count the eggs as he has to do now. Disputes over the correctness of the dozens would also be eliminated.

The farmer would have no cause of complaint, because the storekeepers paid less for the smaller eggs as would be the case when eggs are graded for size. This would firstly, induce the farmer's wife to use the small eggs on the farm and send the big eggs to the storekeeper instead of reversing the process, and secondly, it would be an incentive to the farmer to improve his stock in order to get a bigger egg. A bigger egg, it may be said, is absolutely essential for the export trade, as it does not pay to export any eggs smaller than 15 lb. pack, which constitutes the average 2 ounce egg. The competition on the overseas market becomes keener every year, and unless a 15 lb. or heavier egg pack can be exported, the low prices and high overhead charges would be a severe handicap upon export. The following case will illustrate the truth of this. A certain exporter who shipped per *Arundel Castle*, which left Capetown on the 14th November, 1927, received as the maximum price for the 13½ lb. 44s. 3d. per case, and for the 17 lb. 66s. per case. The transport and overhead charges in each case were approximately 18s. per case, leaving him 26s. 3d. on the smaller and 48s. on the larger eggs.

It is also a known fact that some commercial egg farmers refuse to join an Egg Circle because the Egg Circle pays on weight, and the same return is therefore not received for small eggs as when eggs are sold per dozen on the open market irrespective of their size.

It might be said, that the payment by weight is not the fairest way of payment, for according to the case quoted above, the producer of the 13½ lb. pack would receive only 1.106s. per lb. whereas the producer of the 17lb. pack would receive 1.294s. per lb. It should, however, be remembered that there is a bigger demand for the larger egg and consequently a higher price per lb. is paid.

But a multiplicity of grades is to be avoided as the general farmer is not in a position to comply with them. In the quoted example, the extremes were taken but in general the difference in price paid for the smaller and larger eggs is not so big since every producer has small and large eggs in smaller or bigger proportions.

The necessity of payment by weight in preference to the customary payment at a flat rate per dozen is clearly shown in the following example.

- (a) Mrs X has for sale 10 dozen eggs weighing 15 lb. If sold by dozen at 1s. 3d. per dozen they realise 12s. 6d, if sold by weight at 10d. per lb. they realise 12s. 6d.
- (b) Mrs Y. has for sale 10 dozen eggs weighing 16lb. If sold by dozen at 1s. 3d. per dozen they realise 12s. 6d, if sold by weight at 10d. per lb. they realise 13s. 4d. i.e. 8d. or 6½ per cent more than sale per dozen.
- (c) Mrs. Z. has for sale 10 dozen eggs weighing 17lb. If sold by dozen at 1s. 3d. per dozen they realise 12s. 6d, if sold by weight at 10d. per lb. they realise 14s. 2d. i.e. 1s. 8d. or 13½ per cent. more than sale per dozen.

The payment by weight would undoubtedly in the beginning reduce the receipts of the producer of small eggs. On the other hand it would soon tend to encourage the production and sale of a larger egg.

II. *Payment by Grade in the Bigger Centres.*

It is with the object of minimising the disadvantages of payment by weight as explained above and in order to get better trade organisation that this regulation is proposed. Although it is impossible for the small producer to grade his eggs according to size, this is not the case with the commercial poultry man and the wholesaler. In some of the towns named, the public have already been educated to buy eggs graded for size and quality, and it should not be difficult to introduce this system in any of these places.

The only places where some difficulty would be experienced in connection with the grading of eggs would be those where the open markets are well patronised by the small producers and consumers, as it would be difficult to grade small consignments into various grades. To meet this difficulty it might be considered advisable in the beginning to introduce only two grades, e.g. two ounces and over, and under two ounces. On the other hand, however, the final objective should be the three grades and, therefore, eventually it would seem best to start the correct way. It should also be remembered that in the towns mentioned the percentage of eggs sold in small quantities on the markets direct to consumers is so small that the rest of the trade deserves first consideration.

This regulation must be regarded merely as a stepping-stone and a means of educating the general public to the advantages of buying and selling by grade. The grade system therefore, although not enforced in the smaller places would probably be gradually accepted and within a few years this regulation might be amended to apply to all the trade in the Union.

III. *Grades for Internal Quality.*

These grades are already known both to producers, even to the most indifferent ones, and to the trade. In reality there are only two grades that are of any importance to the producer, viz. new-laid and fresh. Although at present there is still the inferior egg classed as cooking eggs, this class of egg would tend to disappear as soon as the proposed regulations are enforced and their presence might then for practical purposes be ignored.

The farmer could easily be educated as regards the difference between new-laid and fresh eggs. The first receiver could explain to the farmer that fertile eggs more than two days old and unfertile eggs more than 5 or six days old, could not be sold at the terminal market as new-laid and that, therefore, he should distinguish between his new-laid eggs and his fresh eggs and keep them apart. The farmer once knowing that he will be paid on a quality basis would endeavour to market his eggs as new-laid.

Although the ideal would have been to make even the producer liable under the act for the sale of unsound eggs, it is not considered that this is practical at this stage. The fact should not be ignored that there are many producers, both European and non-European, that are too ignorant to test eggs for quality and further that few producers have the facilities and time to test eggs. If eggs are sold direct to consumers by producers, the latter should, however, be responsible for the quality of the eggs. It should, therefore, be made an offence for any trader to *buy* or *sell* eggs unfit for human consumption or eggs that are dirty, tainted or in any way contaminated or not up to the specified grade.

Each proposed grade can be further described as follows :—

New-laid Eggs.—This class should be graded for weight into :—

- (a) 25 ounces per dozen. No individual egg to weigh less than 2 ounces.
- (b) 22½ ounces per dozen. No individual egg to weigh less than 1½ ounces.
- (c) 19½ ounces per dozen. No minimum weight.

The quality should comply with the following description.—Air cell not over one-eighth inch in depth, yolk dimly visible, white firm and clear, shell sound with the bloom still visible and spotlessly clean, of very even grade, no trace of foreign odour or taint, may be served alone as poached, fried or boiled, or in combination with other foods.

Fresh.—This class should be graded for weight into :—

- (a) 24 ounces per dozen or over. No individual egg weighing less than $1\frac{1}{4}$ ounces.
- (b) 22 ounces per dozen or over. No individual egg weighing less than $1\frac{1}{8}$ ounces.
- (c) 19 ounces per dozen or over. No minimum weight.

The quality should comply with the following description.—Air cell not over three-eighths inch in depth, yolk may be visible, blending gradually into white, white clear and firm, shell sound and clean, of even grade, flavour good, may be used alone or in combination with other food.

Cooking Eggs.—All eggs of this class to be sold by weight as shrinkage does not allow of uniform grading.

These eggs should be sound in shell, may be slightly soiled, but not dirty, and may be weak or watery, may show heavy yolks, but must be fit for consumption and need not be sufficiently good in flavour and quality to be used alone or in mild flavoured dishes. This class of egg might include the weaker cold storage and preserved eggs.

Cold Storage or Preserved Eggs.—All cold storage eggs, except those intended for export should be stamped as such. All eggs preserved must be marked as such. Cold storage and Preserved eggs should comply with the description of fresh eggs for both weight and quality.

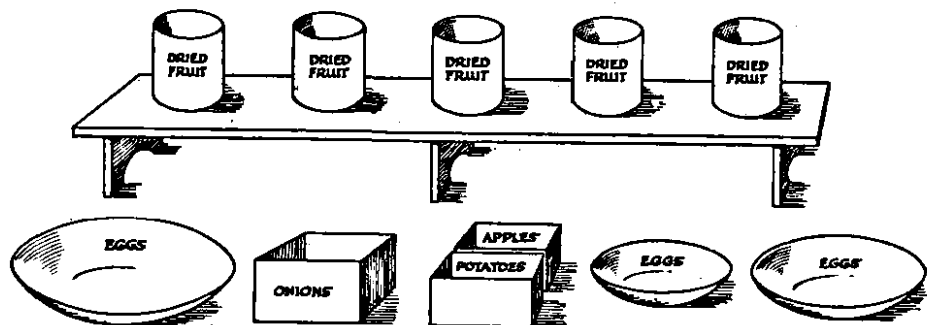
NOTE.—The weights in the case of new-laid, fresh and storage eggs will only apply when these eggs are sold in any of the places stipulated in regulation No. III.

IV. *Certification of Premises.*

The certification of premises of wholesalers as well as cold storage premises for the storage of eggs for local consumption, is of the greatest importance. As pointed out already eggs are kept under unhygienic conditions by most traders. Eggs being such a highly perishable product, this practice is dangerous to the public, as the egg is a very prolific source for the growth of germs and secondly, it is a source of loss because of rapid deterioration of the product.

Eggs are at present often stored under the most unhygienic conditions not only by Kaffirs in filthy huts and by Indians in dirty stores, but also by Europeans. They are found stored next to and in the same room as cheese, bacon, skins and hides, wool, tobacco, potatoes, onions, apples, oranges, Little's dip, Kerol, paraffin, vinegar. The writer one Monday morning upon entering the business house of the Chairman of the Chamber of Commerce in one of the

biggest country towns in the Transvaal, found eggs stored over the week-end in the following way on the floor.



In another town the leading buyer of eggs and poultry was an Indian, who kept the eggs in a small room, at the back of his shop, that did not allow of ventilation when closed and where he had hardware as well as Little's dip, Kerol, paraffin, turpentine, etc.

Storage conditions are, on the whole, far from satisfactory, and a change is not only advisable, but absolutely necessary. The main causes for the prevailing conditions are :—

- (1) Ignorance.
- (2) Indifference towards the egg trade.
- (3) Lack of space and decent premises.

Poultry products possess special characteristics which make it necessary that standardisation take place as near to the source of production as possible. Repeated handling, packing and examination of eggs are detrimental to the quality of the eggs and increases the cost of marketing, and are conducive to increased deterioration and heavy breakage. It is therefore desirable that eggs be tested, graded and packed at the time of the first assembling, this would reduce re-testing, re-grading, etc. to a minimum and eggs could pass through the wholesaler and retailer to the consumer in a minimum of time or they could be cold stored within a few days of production and be ready for export or use during the scarce season.

This is not the case now and it is not likely to happen unless the trade be directed through a different channel which can only be done when the premises of egg dealers are certified. It might even prove necessary to prescribe the handling of a minimum number of cases of eggs per week in towns where more than two certificates are applied for. It is not uncommon that twenty or more storekeepers handle eggs and poultry in a small village with the result that all have to await the collection of sufficient eggs to despatch to the terminal market, deterioration meanwhile taking place rapidly in the warm wood and iron shops. As a result of certification of premises, payment by weight, grading, and above all, buying on a quality basis (which requires the testing of every egg), storekeepers, or at any rate most storekeepers would immediately abandon the egg-trade especially so as they are already losing money on eggs and poultry. Specialised egg, poultry and possibly butter merchants would be the natural result, either apart from the ordinary trading business or in conjunction with it. It would only be then that the poultry industry would take its proper position as a branch of agriculture. The development of the specialised poultry merchant would also mean the abolition of the hateful barter system that is in vogue practically throughout the country.

The greatest advantage of the certification of premises is, however, to be found in the form of educational work. The egg and poultry merchant would in reality become the "father" of the poultry community in his area. The merchant being interested in his work, would study poultry and all branches connected with it. He would study production, feeding, marketing, etc. and do all he could to improve the trade in his vicinity in order to get more trade. Incubators, poultry food and other appliances would be stocked by him. This merchant should eventually become of great value to the farmer and assist the Department of Agriculture to distribute the knowledge gathered by its officers. Bulletins should be prepared for the guidance of all egg and poultry merchants, explaining in detail the handling of eggs and poultry to the best advantage. Bulletins should also be prepared for farmers on the various points of production and marketing. This system would also tend towards uniformity of production in more or less well-defined areas, which is very desirable as it means greater efficiency in the grading and packing of eggs and poultry.

The fact may be mentioned that in Canada just as in South Africa, the principal producers of eggs are the general farmers, and that small dealers and collectors at one time, before the introduction of legislation, also played a large part in the egg and poultry trade, but that to-day the system in Canada is that the farmers bring in their eggs which are graded and bought on grade by the buyer.

The certification of premises and the consequent establishment of egg merchants would, together with improvement in the quality of the eggs tend to encourage consumption. At present hardly any eggs are available in many parts of the country during the scarce season, and very often eggs cannot be procured at any price, while there may be a glut in the terminal markets. Complaints are made in many dorps that the only people who produce eggs during the scarce season are members of Egg Circles and therefore cannot supply any eggs to the people who require them.

With the establishment of specialist egg merchants in the country, the position would be changed and if no eggs should be supplied locally the merchant would make it his business to obtain some from other centres. There would no doubt be a big demand for the cheaper egg in the country and for this purpose no better egg could be supplied than the cold storage egg. The country people as a rule are not prepared to pay 3s. or 4s. per dozen for new-laid eggs, but are willing to pay 2s. per dozen. There would consequently be a big demand for storage eggs which will help the industry considerably as it does not pay at present to export eggs in December or later, but all surplus eggs stored after this date cannot under present conditions be consumed in winter. If a demand could be created for this class of egg in the country, it would solve many problems of the producer. More eggs would consequently be stored which would also tend to make the price of eggs uniform throughout the year once the general public are acquainted with the value of storage eggs.

As far as grades are concerned, it is not intended that they should be applied to the country local trade unless specially asked for by the local Farmers' Union as well as the Chamber of Commerce. Only wholesalers who despatch eggs from one district to another should have certified premises. Quality grades, even in the country, should, however, conform to the regulations, but not grades for size or weight. Eggs despatched from one district to another should be graded for quality under any circumstances, but need not be graded for weight. When they are, however, shipped as graded for quality only and not for weight, the containers should be marked "ungraded." Every wholesaler who has certified premises should be required to have a brand or number registered with the Department of Agriculture, and no eggs should be allowed to be shipped unless they bear this registered brand or number.

It might be argued that in some instances this system would result in the monopoly of the egg trade with the result that farmers would be at the mercy of one man for the disposal of his products. This would, however, not be the case, because the farmer would know from market reports exactly at what figure his produce could be sold, and the terminal market as the standards would be fixed. If the price be not considered to be fair, the producers would always have the alternative of forming a collecting depot or agency as explained in the chapter on Co-operative Marketing.

V. *Standard Boxes.*

Standard boxes are an essential for the safe conveyance of eggs. The fact, however, is that a fair amount of capital has already been invested in egg boxes. When, therefore, it is decided to introduce standardisation of boxes, provision should be made for the continued use of non-standardised boxes already in use for a further (short) period of years—2 or 3 at most.

The problem of the most suitable box is a difficult one. Under present conditions, the best boxes appear to be the 30 dozen, 15 dozen and the 6 or 9 dozen box. Experiments should however, be instituted with boxes which would take 100, 200, 300 and 400 eggs, and a report submitted when this experiment has been concluded.

VI. *Poultry.*

The poultry industry is not yet established, and it is not advisable to bring in any standards at this stage. The few specialists who go in for the production of table poultry do their own grading as required by their particular type of trade. The few traders in table poultry have their own grades for both local and export trade which cannot be improved upon at present. Once the new system with regard to eggs is in proper working order, the poultry problem could be attended to as it is not wise to make too many drastic changes at once. The egg merchant would in due course encounter difficulties with his poultry trade and with his assistance a complete, but simple grading system could be drawn up to satisfy the trade. In fact the licensed dealers in eggs and poultry would soon find it advantageous to grade poultry as for size and quality and this problem would then tend to solve itself. Only then would it be advisable to introduce regulations in order to get uniformity in the whole country.

At present the payment by weight would appear the fairest method. Naturally higher prices per lb. would be offered for the best class of birds by the dealers and this would encourage the farmer to produce a better bird than he is doing at present.

VII. *Standard Poultry Crate.*

Before making any recommendations for a standard crate, it would be advisable to investigate the possibilities of a poultry truck as recommended in the chapter on Transportation.

METHOD OF INSPECTION.

The certification and inspection of all premises except of those in Johannesburg, Pretoria, Kimberley, Capetown, Port Elizabeth, East London, Bloemfontein, Maritzburg and Durban, should be done by the health inspectors of each town or district. Each wholesaler who wishes to have a certificate for his premises should pay an annual licence fee. The issue of a licence in regard of any premises would depend upon its compliance with certain regulations as regards construction and equipment as drawn up by the Department of Agriculture. These premises should be constantly under the supervision of the health officers or other officers appointed by the Municipal Councils.

A Chief Egg Inspector for the Union should be appointed with one or more assistant inspectors at each of the places mentioned above. These Inspectors

would be given the right to inspect dealers' premises, examine and issue licences and report on the proper conduct of business, with full powers to condemn supplies offered for sale privately or in public as unfit for human consumption and submit the case to the responsible authority for action. When so requested by consumers, dealers, etc., inspectors should have power to examine any consignment brought or offered on purchase or sale and to issue certificates or stamp cases as up to specified grade or not.

A small inspection fee should be levied on every case of eggs inspected by an inspector and this money, together with part or all of the licence fees, should be paid into the Egg Levy Fund which would provide the necessary funds for maintaining the inspection service.

Summary of Advantages of Standardisation.

1. Payment on both quality and actual quantity (weight) basis, with the result that South Africa would soon produce both a superior and bigger egg than now.
2. Reduction of waste in bad, stale and dirty eggs.
3. Increased production as better prices would be paid, and increased consumption as the quality would be reliable.
4. The sanitary control of eggs as a result of the system of inspection.
5. A general advance in the trade and decreased costs of marketing. Once the new system is well established, the cost of marketing would be more or less fixed and there would be less speculation and less scope for unscrupulous agents and speculators to work contrary to the interests of both producer and consumer. Abundant proof, however, exists to show that it is the producer who ultimately suffers from defective systems of marketing. This should one and for all be overcome.
6. Stabilising of prices.
7. Numerous educational advantages.
8. Banishment of the barter system.

Propaganda.

The consumer, or in other words, the housewife, should be a valuable ally in forcing the improvement of the quality of eggs and money invested in the education of the housewife would undoubtedly be well spent. Demonstrations of the quality, packing and uses of eggs could be held in conjunction with municipal demonstrations for the use of electricity, and should prove of great interest to the general public.

Demonstrations for the use of eggs, poultry, butter, cheese and dairy produce generally in the town halls of the larger centres should prove of great advantage. In conjunction or apart from such demonstrations, classes for the instruction of dealers and their employees in eggpacking, grading and testing should be conducted by inspectors. Classes at suitable centres should also be given for the training of sanitary sub-inspectors of the various Urban and Rural Municipal Councils for the testing of eggs for freshness, etc. Special classes should be arranged for country storekeepers and even for farmers.

The country storekeeper has a wonderful grip on the farming community and his daily intercourse and discussions with the farmer gives him great opportunity and power for propaganda work in the particular community in which he works. If the storekeeper therefore would favour it, the grading of eggs would be ensured of success. It is, therefore of great importance to obtain his approval of any proposed marketing scheme. The storekeepers in most towns seem to favour the standardisation of poultry and poultry products, and are particularly in favour of payment by weight. A little propaganda work among the storekeepers in the country should convince these of the advantages of standardisation.

Exhibits at the various Agricultural Shows and Farmers' Days, emphasising the comparison of fresh, well-graded eggs, compared with bad and inferior packs, etc., and of fine table birds with bad table birds should prove to the farmer, his wife and daughters the advantages of standardisation.

And an enormous amount of good should result from education in this direction as it is extraordinary how ignorant most farmers are as also many business men who have had years of experience in the egg trade. It would be to the advantage of every producer and trader to have faith in the poultry products and to maintain a high standard of excellence in every particular. "The absolute assurance and flavour in regard to human nutrition is essential for increased consumption." It should further be impressed upon the public that eggs are a good, cheap food, but the number of grades should be limited in order to enable everybody to understand them.



The Market Master's poultry section at Port Elizabeth.

The new press service should be used to full advantage for propaganda work in connection with eggs and poultry. Short articles of general interest specially with regard to the points of quality and standards of eggs and constant propaganda to eat more guaranteed tested and graded eggs should bring about a great change in a very short time.

The Union's surplus production during December and January, when the export is over as well as July and August before export has started, could be greatly reduced by national egg weeks and extensive advertising.

The press service should further be utilised for market intelligence having a special column for egg and poultry, giving the prices of each grade which would enable the farmer to judge whether he is paid a fair price for his produce or not.

The following quotations are given to prove the satisfactory state of affairs that were brought about in Canada through standardisation. The Minister of Agriculture, remarks: "... this satisfactory state of affairs is generally attributed in Canadian circles to the standardisation of the product and the application of the Egg Marketing Regulations, especially those regulations referring to domestic trading. The report shows that the moderate prices ruling for eggs, combined with the higher quality offered had a marked effect on consumption."

A firm of distributors remarks: "Regarding the grading of eggs, the attitude of the consumer has been very favourable, for now when the house wife

wants eggs for different purposes she knows what grade to order, and is assured that she will get what she pays for. We find that on the whole, 80 per cent. of the producers are satisfied with the plan. Regarding ourselves, while more time is required to carry out the grading, we have been amply repaid by being assured of the quality of our eggs and by the satisfaction given our customers."

Another distributor writes: "Our farmers on the whole are very pleased and we think that our retail trade in eggs has increased approximately 25 per cent."

A producer expresses his views as follows: "Prior to the introduction of the egg regulations, I, in common with most of the commercial producers, was using every possible care re quality of eggs marketed, but found it hard to compete with the class of eggs thrown on the market as new-laid. The regulations as they now stand give the producer every incentive to use care in his shipments since he is paid strictly on grade. The man who makes a point of producing the better class of egg can depend upon being paid a price in accordance with quality. The public has now arrived at a discriminating state of mind and appreciates the value of different grades for different purposes. We have found an increased demand from our wholesalers which can only be accounted for by increased consumption. I am absolutely certain that no responsible producer would wish to see the regulations slackened in any way."

Countries which show most progress in the poultry industry are those where legislation has been passed to regulate the marketing of poultry products. It will at least be doubted whether South Africa will be able to make similar progress without legislation although the time may as yet not be opportune thereto. For one, it is to be remembered that South Africa is a country of vast expanse with relatively small markets, so that costs of administration may prove very high.

Improvement in breeding, organisation of producers and orderly marketing in time enforced by law if necessary would appear the three essentials if the producer is to earn the full benefits of his efforts.

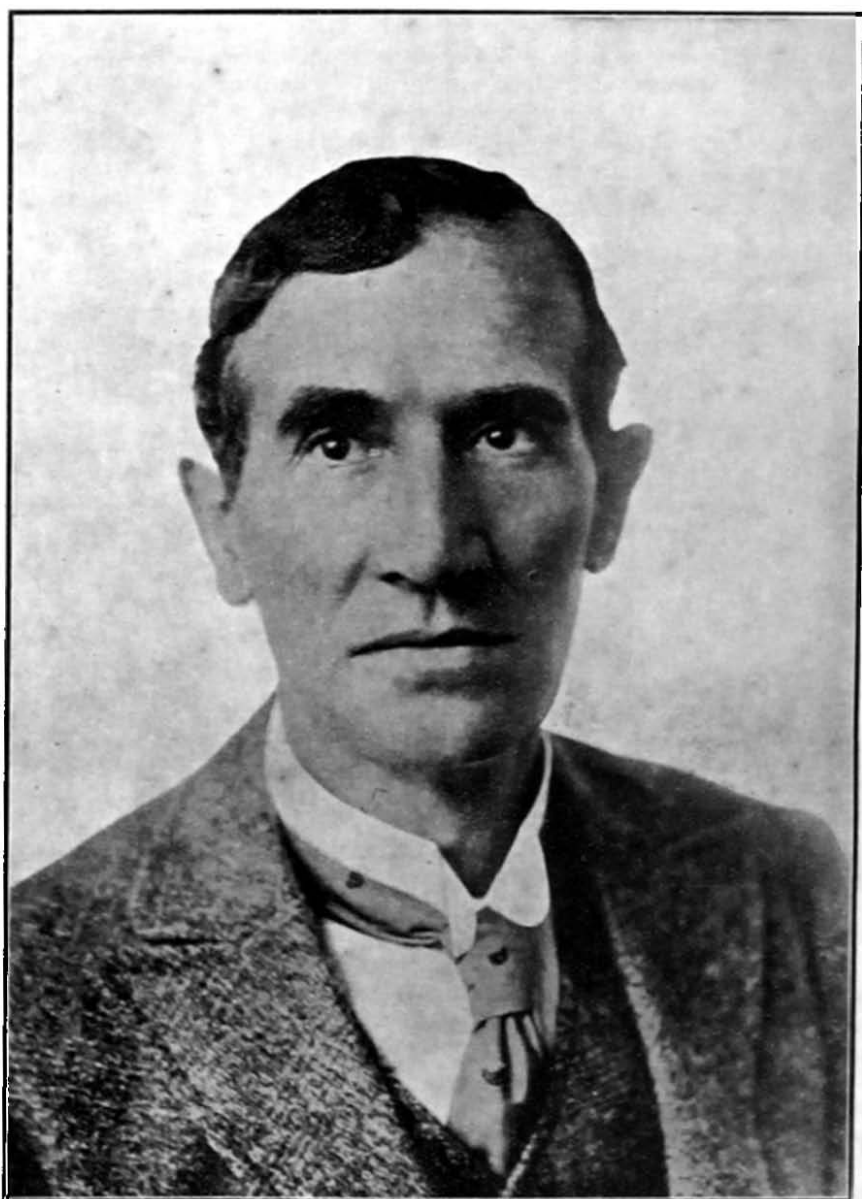
PART VII.

FOREIGN TRADE.

The future development of the poultry industry in South Africa is to a very large extent dependent on its export trade. Political and economical disturbances are bound to affect this industry as well as any other industry in the Union. The outbreak of the Great War, for instance, was undoubtedly the principal factor that changed South Africa from an importing into an exporting country. Imports were increasing rapidly until 1914, when they practically came to a dead stop. Had it not been for the Great war, it is doubtful whether this would have been the case.

In the same year (i.e. 1914), South Africa began to export eggs which continued further to develop until 1918, when another economic factor, lack of shipping space, prevented shipment. Export after 1919 improved rapidly, and with the new Egg Export Regulations which came into force in 1920, the egg export trade was placed on a sound basis. The first mishap that occurred after 1918 was that of the shipping strike in 1925. If this strike had occurred a little later in the year, the consequences might have been very serious and heavy losses would undoubtedly have been incurred. As it happened the direct evil results of the strike were small, but indirectly a considerable amount of loss resulted from the orange taint which undoubtedly was mainly due to the shipping strike. Had it not been for the strike, the citrus fruit would have been shipped in time instead of rotting at the ports and not only contaminating the whole

cold storage, but the whole atmosphere surrounding it. A shipping strike during the months of October and November would undoubtedly prove a serious matter for the poultry industry.

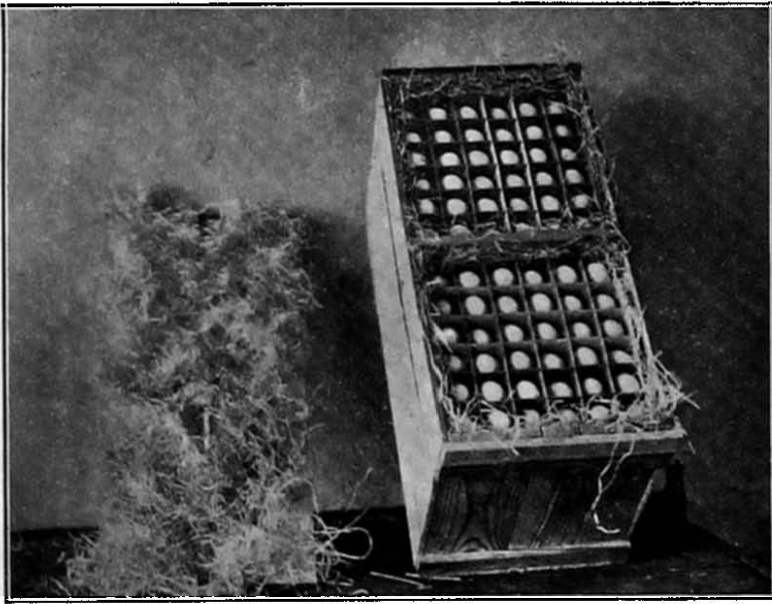


The late W. O. John, Esq., who is the father of the Union Egg Export.

The world war greatly disturbed foreign trade. Not only did the big producing countries such as Russia, Germany and Austria-Hungary pay no attention to chicken rearing and so almost caused the total destruction of poultry, but the demoralisation of exchange rates equally affected the trade and only after the exchange rates had approached a more normal basis could a normal resumption of trade be expected.

Countries, however, that were comparatively small producers before the war, and were less affected by its devastating results, benefited and developed into more important egg producing countries. This was particularly the case with the Dominions. Now, however, that production is again developing in those countries that were affected during the war, it shows development along more up-to-date lines. There is a great effort to improve the quality of poultry and eggs produced and marketing is done more scientifically than before the war. There is a clamour in all countries for standardisation, and the efficiency of the whole industry appears to have been enhanced.

This is a fact that South African producers can ill afford to overlook. The competition in eggs and poultry is becoming keener every year as most countries are now realising the value of the poultry industry. Strict rules and regulations are enforced everywhere, both for internal and foreign trade, and this cannot but result in the production and export of a better quality article.



A case of South African eggs graded and packed for export.

Geographically, South Africa is well adapted to poultry production as it has the soil, crops and climate suitable for the production of poultry and eggs. The fact that the Union is situated in the southern hemisphere makes it possible to ship its surplus eggs during the season of plentiful production to the northern markets where most of the big consuming centres are and where eggs are scarce during that time of the year. There are, however, certain geographical disadvantages. All packing material such as boxes, cardboard for fillers, and woodwool, are to be imported and are to be hauled over long distances to the inland producing areas and ultimately again back to the ports. Shipping eggs over 6,000 miles in refrigerated chambers is another costly necessity. South African farms are usually big and consequently many are far from the markets which tends to increase both cost of production and costs of marketing.

In spite of all these difficulties, and that greatest of troubles, excessive overhead charges, South Africa has proved itself to be in a position to make a success

IMPORTS OF EGGS IN SHELL INTO THE UNITED KINGDOM.

69-70

Countries whence consigned.	Average for Quinquennium Period ended 1904.		Average for Quinquennium Period ended 1913.		1923		1924		1925		1926		1927		1928	
	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.	Great Hundreds.	Per Cent.
Irish Free State.....	—	—	—	—	3,345,417*	16.7	4,686,834	23.1	4,566,578	20.9	4,427,769	20.0	5,051,523	20.8	5,177,136	19.5
Union of South Africa.....	A.	—	A.	—	126,866	0.6	213,061	1.0	221,769	1.0	259,545	1.2	371,951	1.5	338,804	1.3
Australia.....	A.	—	A.	—	112,818	0.6	73,685	0.4	142,230	0.7	335,470	1.5	122,172	0.5	266,977	1.0
Canada.....	580,872	3.2	4,500	—	377,759	1.9	270,831	1.3	244,537	1.1	156,350	0.7	42,099	0.2	83,323	0.3
Other British Possessions.....	6,115	—	3,679	—	17,881	0.1	34,650	0.2	26,199	0.1	7,219	—	5,573	—	14,124	0.1
TOTAL OVERSEAS EMPIRE.....	586,987	3.2	8,179	—	3,980,741	19.9	5,279,061	26.0	5,201,313	23.8	5,186,353	23.4	5,593,318	23.0	5,880,364	22.2
Russia.....	5,538,309	29.9	9,708,897	50.7	304,252	1.5	824,264	4.1	2,290,633	10.5	774,365	3.5	1,586,487	6.5	1,766,845	6.7
Latvia.....	B.	—	B.	—	279,692	1.4	718,362	3.5	314,695	1.4	283,890	1.3	639,241	2.6	545,829	2.0
Lithuania.....	B.	—	B.	—	477,770	2.4	300,552	1.5	211,721	1.0	79,638	0.4	11,445	0.1	56,932	0.2
Sweden.....	33,715	0.2	320,893	1.7	67,360	0.3	78,026	0.4	126,850	0.6	221,952	1.0	548,101	2.3	538,727	2.0
Norway.....	D.	—	D.	—	224	—	102,698	0.5	109,678	0.5	35,216	0.2	7,945	—	11,140	—
Denmark.....	3,286,073	17.7	3,791,416	19.8	6,757,300	33.7	6,044,743	29.8	5,836,491	26.7	5,625,380	25.4	5,679,640	23.3	5,329,669	20.1
Poland.....	C.	—	C.	—	1,284,922	6.4	730,571	3.6	1,067,720	4.9	2,721,512	12.3	3,387,956	13.9	2,561,969	9.7
Germany.....	3,411,805	18.4	547,217	2.8	29,217	0.1	16,012	0.1	110,370	0.5	243,587	1.1	241,028	1.0	334,615	1.3
Netherlands.....	115,547	0.6	718,886	3.8	1,435,392	7.2	1,234,682	6.1	1,691,631	7.7	1,985,416	9.0	2,359,895	9.7	2,723,767	10.3
Belgium.....	2,477,483	13.4	62,541	0.3	54,788	0.3	698,309	3.4	1,005,484	4.6	1,940,915	8.8	2,141,321	8.8	2,907,901	11.0
France.....	1,812,605	9.8	795,891	4.2	1,337,724	6.7	60,301	0.3	231,039	1.1	588,711	2.7	429,509	1.8	1,058,881	6.3
Switzerland.....	D.	—	D.	—	13,164	0.1	3,123	—	13,606	0.1	11,789	—	4,790	—	2,305	—
Italy.....	D.	—	839,568	4.4	415,350	2.1	422,039	2.1	525,354	2.4	203,221	0.9	87,407	0.4	57,616	0.2
Austria Hungary.....	D.	—	1,114,912	5.8	6,170	—	3,591	—	111,325	0.5	35,575	0.2	14,630	0.1	1,512	—
Serb-Croat-Slovene State.....	D.	—	D.	—	58,220	0.3	3,100	—	40,472	0.2	18,444	0.1	550	—	600	—
Roumania.....	D.	—	63,665	0.3	419,844	2.1	53,819	0.3	75,097	0.3	3,516	—	7,182	—	660	—
Egypt.....	540,246	2.9	829,234	4.3	25,404	0.1	44,319	0.2	10,662	—	6,224	—	668,544	2.7	809,638	3.0
Morocco.....	373,944	2.0	300,417	1.6	1,209,332	6.0	1,624,460	8.0	1,162,006	5.3	672,167	3.0	564	—	—	—
China.....	D.	—	D.	—	208,917	1.0	323,142	1.6	87,626	0.4	2,802	—	681,011	2.8	945,880	3.6
United States of America.....	224,914	1.2	3,403	—	1,113,024	5.6	1,033,313	5.1	1,000,837	4.6	1,232,305	5.6	92,880	0.4	91,789	0.3
Argentine Republic.....	D.	—	D.	—	240,041	1.2	136,494	0.7	88,084	0.4	60,879	0.3	80,769	0.3	99,213	0.4
Other Foreign Countries.....	140,798	0.7	50,374	0.3	263,524	1.3	464,373	2.3	462,840	2.1	145,647	0.6	75,587	0.3	141,557	0.5
					63,571	0.3	81,245	0.4	89,522	0.4	45,891	0.2	—	—	—	—
TOTAL FOREIGN.....	17,955,439	96.8	19,147,314	100.0	16,065,202	80.1	15,000,438	74.0	16,663,803	76.2	16,939,042	76.6	18,746,482	77.0	20,587,046	77.8
TOTAL IMPORTS.....	18,542,426	100.0	19,155,493	100.0	20,045,943	100.0	20,279,499	100.0	21,865,116	100.0	22,125,395	100.0	24,339,800	100.0	26,467,410	100.0
RE-EXPORTS.....	95,307	—	153,971	—	45,596	—	271,599	—	182,351	—	51,322	—	—	—	—	—
NET IMPORTS.....	18,447,119	—	19,001,522	—	20,000,347	—	20,007,900	—	21,682,765	—	22,074,073	—	24,339,800	—	26,467,410	—

A.—Included in "Other British Possessions."

B.—Included with "Russia."

C.—Included with "Germany," "Russia" and Austria-Hungary."

D.—Not separately recorded. Included with "Other Foreign Countries."

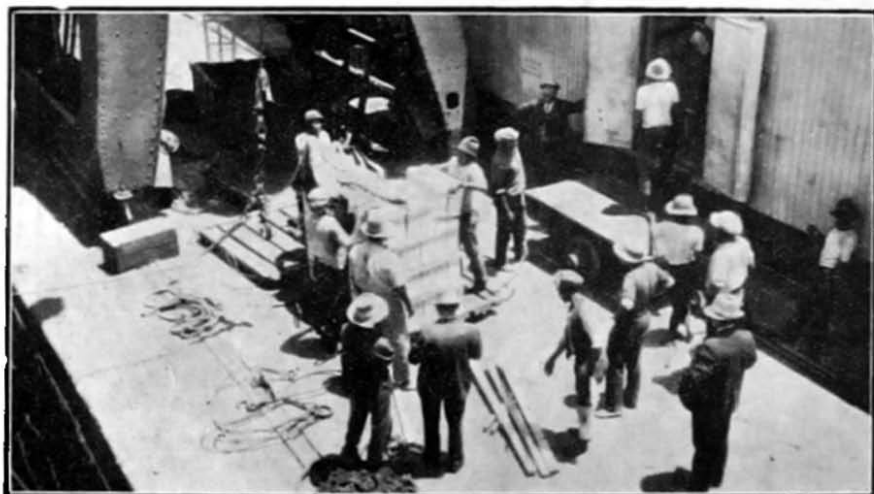
* Nine months only from 1st April.

of its poultry business. Further extension, however, greatly depends upon the export trade as local demand is very limited. In order to retain its reputation on the foreign market, South Africa must satisfy two requisites. The first is that of a more efficient policy for local trade as explained in previous chapters for unless costs of marketing can be reduced and at the same time the best product delivered on the overseas market, South Africa cannot expect to hold its own for any considerable time in the world's market.

The second is the strict enforcement of the export regulations which would allow of the export of only the best eggs and poultry.

The Egg Export Regulations were greatly improved recently (1929), and the quality of the eggs is now definitely defined. These regulations are strictly enforced at the ports and only the best quality eggs are allowed to be exported.

The quality of the export eggs is greatly enhanced by the presence of a large percentage of eggs from the co-operative egg circles as is clearly emphasised by the Trade Commissioner in London.



Transferring eggs from insulated trucks on board ship.

"It is principally the co-operative egg circles which were responsible for this good reputation enjoyed by our eggs on this market to-day. Replies to circular letters sent by me at the end of the season to the chief receivers of South African eggs, were unanimous in their praise of the high standard reached without exception by these co-operative bodies. More than one firm which did not receive eggs from some egg circle or other inquired repeatedly from my officials whether it would not be possible for them also to receive their eggs from such circles."

In another part of this report the cost of foreign marketing was given in detail and it is evident that something should be done to decrease the overhead expenses and further to investigate whether it is possible to obtain better prices on the overseas market. It must be realised that a small increase in the price will mean an enormous increase in the total receipts from export. A sixpence increase per long hundred would, for instance, have returned an additional £8,679 to exporters during the 1928 export season. Decreasing overseas marketing costs and obtaining better prices should therefore be a matter for investigation.

The following figures are given in order that the extent of British trade and the strength of South Africa's competitors may be judged.

The above figures were taken from the seventh "Report of the Imperial Economics Committee, on Marketing and Preparing for Market of Foodstuffs. Produced within the Empire," to which the 1927 and 1928 imports were added.

From these figures it is seen that in 1923 the total imports of eggs into Great Britain exceeded the pre-war imports by one million great hundreds and since then these imports have increased until in 1928 they exceeded the pre-war figures by nearly six and a half million great hundreds. It must, however, be noted that foreign imports in 1928 have increased by only one and a half million long hundreds over that of 1913, whereas the Overseas Empire increased their imports by nearly six million great hundreds. Although some foreign



Handling eggs in the ship's hold.

countries, e.g. Russia and Austria-Hungary, have not yet reached their pre-war figures, others, e.g. Irish Free State, Netherlands, Denmark and Belgium, have increased their exports considerably and it appears from reports that production is increasing everywhere. It must further be noted that the increase of seven and a half million great hundreds into Great Britain does not represent all the additional eggs that have come on to the British markets as the home production has increased from 35 per cent. of the total home consumption in 1913 to 52 per cent. in 1927.

South Africa is only supplying a very small percentage (1·28 per cent. in 1928) of the total quantity of eggs imported by Great Britain, and although South Africa's export has increased by 266 per cent. since 1923, it has only increased from 0·6 per cent. in 1923 to 1·28 per cent. in 1928 of the total imports into Great Britain. It is, therefore, evident that the future of the Union's export is not dependent upon the increase in its own production, but upon the production of competitors who are more favourably situated.

The prices of eggs on the London Market are decreasing annually as is proved by the following figures taken from the annual report, by Mr. Edward Brown, F.L.S. in the *Harper Adams Utility Poultry Journal*.

Average value per great hundred of all eggs imported into Great Britain :—

	s.	d.	
1925.....	15	7½	per great hundred.
1926.....	14	1½	"
1927.....	13	0½	"
1928.....	13	5	"



Eggs in cold storage at Durban during the 1928 export season.

The total imports of dead poultry into the United Kingdom :—

	Cwts.	Value. £
1912.....	222,233	724,893
1913.....	268,551	909,196
1924.....	273,550	1,617,892
1925.....	373,667	2,148,200
1926.....	402,072	2,257,666
1927.....	493,419	2,679,726
1928.....	468,814	2,567,121

Value of imports of dead poultry per cwt :—

1924	1925	1926	1927	1928
118s.	114s. 10d.	112s. 4d.	108s.	109s. 8d.

The total estimated consumption of eggs and poultry in Great Britain and Northern Ireland for 1926 and 1927 is :—

	1927 £	1928 £
Estimated production in Eng- land and Wales.....	23,504,161	25,321,089
Estimated production in Scot- land and Northern Ireland..	5,986,450	6,115,906
Imports.....	21,887,921	23,249,342
TOTAL.....	£51,378,532	£54,686,337

South African Imports and Exports.

The development of the poultry industry in South Africa is clearly indicated by the following import and export figures :—

	IMPORTS.		EXPORTS.	
	Fresh in Shell. No.	Liquid.	Fresh in Shell. No.	Liquid.
1907.....	16,859,587	—	—	—
1908.....	15,469,638	—	—	—
1909.....	13,115,419	—	—	—
1910.....	14,788,406	—	—	—
1911.....	15,386,944	—	—	—
1912.....	18,355,299	—	—	—
1913.....	21,263,252	—	—	—
1914.....	Not given.	—	693,720†	—
1915.....	4,803,209*	342,698	2,148,480	—
1916.....	27,136	311,288	5,385,240	—
1917.....	1,097	250,992	4,388,040	—
1918.....	3,666	10,000	Nil.	—
			Shipping space Unavailable.	
1919.....	5,760	177,967	5,824,800	—
1920.....	3,182	134,684	8,474,400	—
1921.....	5,285	142,837	19,341,000	—
1922.....	687,479	82,848	18,035,280	—
1923.....	899,758	53,419	19,213,560	4,624
1924.....	977,801	71,493	27,461,160	2,930
1925.....	2,521,463	116,863	28,711,080	15,556
1926.....	849,518	52,765	31,119,840	62,046
1927.....	1,388,873	32,397	40,117,320	5,000
1928.....	2,507,745	8,764	41,657,400	—

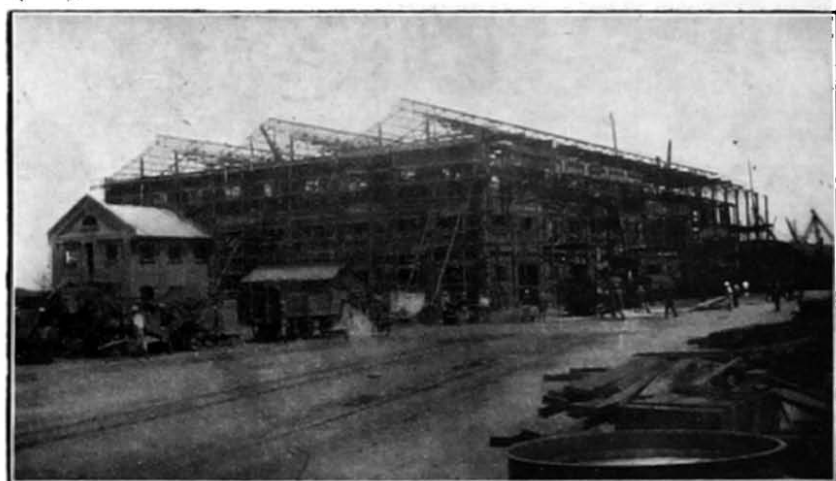
* Since 1915, the imports were given in lb. This was converted into the number of eggs at 1½ oz. per egg.

† Exports only represent eggs exported overseas. Considerable quantities have also been exported to South West Africa, Rhodesia, Congo, etc.

The imports increased slowly until the peak was reached in 1913, since when imports have been negligible except for the year 1925. The above figures would seem to indicate that the high importation figure for 1925 must be attributed to the fact that exports during 1924 were too heavy which resulted in a shortage during the scarce season of 1925. During the taint in 1925, the increase in export was not very heavy compared with that of the previous year. More eggs were stored for local use and the imports during 1926 were consequently low.

A very noticeable feature reflected by the export figures since 1922 is the increase in the size of eggs exported as shown by the following data :—

	15 lb. Pack and Over.	Under 15 lb. Pack.	"Seconds."
	Per Cent.	Per Cent.	Per Cent.
1922.....	48.5	51.5	—
1923.....	59.9	40.1	—
1924.....	56.4	43.6	—
1925.....	66.8	33.2	—
1926.....	64.5	31.3	4.2
1927.....	65.1	29.5	5.4
1928.....	77.5	21.4	1.1



New Government Cold Storage under construction at the Point, Durban.

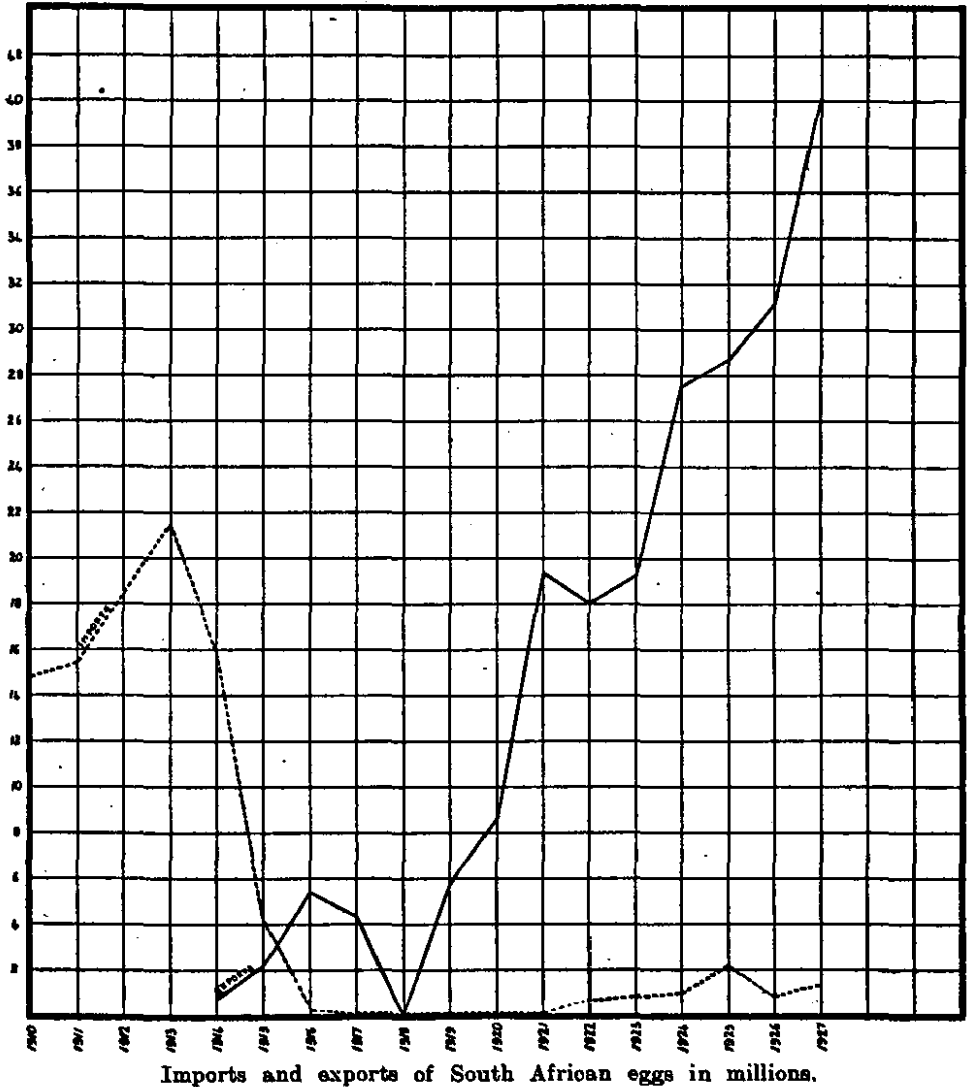
This is very encouraging, but it is doubtful whether this increase is only due to the increase in the size of the eggs produced. A contributory factor may be that the exporters are slowly realising that since the prices are much lower than for the 15 lb. pack while the overhead charges remain the same, it is not profitable to export the 13½ lb. pack and "smalls." A greater percentage of the smaller eggs is consequently consumed locally.

Poultry.

The following figures represent the imports and exports of frozen poultry :—

	Imports.	Exports.		Imports.	Exports.
	lb.	lb.		lb.	lb.
1910.....	194,332	—	1918.....	Nil.	450
1911.....	240,315	—	1919.....	1,440	93,124
1912.....	240,049	—	1920.....	107,263	4,700
1913.....	216,748	—	1921.....	12,991	39,873
1914.....	153,694	—	1922.....	4,725	129,608
1915.....	57,768	—	1923.....	1,836	114,843
1916.....	19,134	—	1924.....	12,766	83,687
1917.....	Nil.	—	1925.....	10,194	69,992
			1926.....	3,920	352,214
			1927.....	8,481	143,374

Imports have decreased considerably. The export figures clearly indicate that the export of frozen poultry is not on a sound basis yet. South Africa has not yet given this side of the industry serious attention. The class of bird reared is not fit for export. The poultry packers only find a small percentage of the birds sent to the markets suitable for export.



Prices.

It is rather difficult to give a fairly accurate result of the prices received for South African eggs on the overseas market, as there has hardly been a normal year since 1924. During 1925 the orange taint affected the price, during 1926 there were industrial troubles in England, while the abnormally cold weather experienced in England affected the home production and accordingly the prices

during 1927-1928 was more or less normal. The average price for 1927 was consequently higher than that of 1926 and 1928. This is proved by the following approximately accurate figures :—

	17 lb.	16 lb.	15 lb.	13½ lb.	Smalls.	Seconds.
	Per 120.					
1928.....	19·4	17·4	15·6	13·4	—	—
1927.....	19·34	18·25	17·4	14·45	12·4	10·5
1926.....	18·84	17·54	16·9	14·08	12·5	12·5

The best prices during 1926 were obtained towards the end of October and the beginning of November, whereas during 1927, the market reached its peak in January. Judged on the export prices paid by the Egg Circles to their members, the prices have been dropping slowly every year. This is principally due to the fact that most of the countries which produced few or no eggs during and immediately after the war have now increased their production to a more or less normal standard and with this increased production the tendency of the prices will naturally tend to drop and it is not expected that we have any hope for much better prices in future.

The Future of the Poultry Industry in the Union.

As pointed out already, it is extremely doubtful whether South Africa would ever have been an exporter of eggs had it not been for the outbreak of the Great War and the question naturally arises whether the Union will continue to be an exporting country once pre-war conditions have been attained again. Poultry has been boomed and is still boomed the world over, especially in Ireland, England, Denmark and Belgium, all countries supplying the English market. England herself who before the war was entirely dependent on her imports has since developed a real poultry industry. Her total home production before the war amounted to approximately 35 per cent. of the total consumption, but has now increased to 52 per cent. After the war many of the returned soldiers, accustomed to open air life and attracted by the then high prices for eggs, turned their attention to poultry farming. The reorganisation of the British Egg Market will further stimulate production and England will become still further self-supporting. It must also be realised that eggs are a product that is so easily produced that it would be comparatively easy to overload the world's markets.

Amrose Keevil, D.S.O., O.B.E., London Central Market, in his article, read before the World's Poultry Congress, Canada, 1927, made the following statement : " When the vastly improved organisation in Denmark, the enormous growth of egg production in Belgium, the resumption of large imports from Holland and France and the re-opening again of export from Russia (in pre-war days the largest source of supply to the United Kingdom) are all considered, it is not improbable that in a few years Great Britain and her European neighbours will supply practically all she needs.

" The truth of this is already seen in the dwindling exports from more distant countries. Last year Australia again made a determined effort to regain a footing in the English market, but with results unsatisfactory to herself. The same may be said of the Argentine, and in a lesser degree of South Africa, whilst Canadian and United States imports have dwindled to inconsiderable quantities. China still exports, but her goods find a market with more difficulty than formerly."

These remarks by Mr. Keevil, who undoubtedly knows the egg trade in England, certainly are not favourable to the future of the South African export.

It must be further remembered that egg preservation in England is only in its earliest infancy, and that most of the cold-stored and pickled eggs consumed in England are derived from other countries. Once storage facilities for eggs for the autumn are well established in England, the winter prices will undoubtedly be much lower than at present, especially in view of the fact that every country is extending its poultry industry.



South African eggs exhibited for sale on the London market.

Neither must it be overlooked when judging the future of the export trade that an extraordinary new process of preserving eggs has been discovered by a Belgian chemist. Eggs placed in large autoclaves, and subjected to a process of de-oxygenisation, are preserved for many months and it is claimed that they come out the same as when they were put in. In fact, it is maintained that at the end of eight weeks after removal from the autoclaves they are in as fresh a condition as eggs only three weeks old even though they may actually be nine months old. A large depot for this process has been erected in England and if successful, it is bound to have far-reaching effects on the poultry business, with probably very little advantage to South African export trade.

But even though the export trade be not affected in any way, it must be remembered that the Poultry Industry is limited. Eggs can only be exported at a profit during three to four months of the year. With the increased poultry population and the development of good strains, over-production during the other eight or nine months of the year is bound to result. The white population of the Union is small and the demand for eggs limited. Although as already explained consumption could be considerably increased, a limit will soon be reached.



A fine display of South African eggs on the Harrod's Empire Exhibition, London.

The natural result of over-production will be lower average prices and these are already experienced to some extent. With decreased returns many commercial poultry farmers will increase their plants in order to maintain their net profit. This will result in a further decrease of prices and the marginal producers will begin to drop out one after another until demand and supply are again in equilibrium. There is, however, no sign of this yet and the poultry industry is still developing with leaps and bounds. But judged on the basis of the reports of stock breeders and sellers of settings of eggs and day-old chicks as well as of export figures, it is clear that South Africa, if development continues at this rate, is bound to overproduce unless radical changes are effected in local consumption.

There is, of course, the question of economy to reduce relative costs and to prevent wastage. The cost of production should be carefully studied and reduced wherever possible. Standardisation should reduce local marketing costs and incidentally also foreign costs of marketing. If the overhead charges be decreased as prices decline, there will no doubt still be much scope for development. All waste should therefore be eliminated, both in production and

marketing, but unless a cheap substitute can be obtained for wheat bran and other expensive food, the future of the poultry industry would appear to be more in the hands of the general farmer who keeps his fifty or hundred birds as a side line on his farm than in that of the commercial poultry farmer.

There is, however, much scope for improving the position of the poultry industry in the Union and with lower prices overseas the consumption in the Union might perhaps be further increased by the conversion of surplus eggs into egg powder. Local consumption should be stimulated in every way and a demand created for South African eggs.

An Egg a Day Campaign.

An egg a day campaign should be of enormous value to the poultry industry in the Union, and it is essential that this should receive earnest consideration. The Egg Levy Advisory Committee, with the assistance of the Department of Agriculture, should not rest until every European inhabitant of the Union consumes an egg a day. During such a campaign, the following points should particularly be brought to the notice of the public.

1. Eggs are one of the two foods which in themselves contain all the necessary elements for growth and proper development of the young and the replacing of waste tissues in adults.
2. An egg a day is essential for the proper growth, mental development and general health of the child.
3. You know how beneficial eggs are in sickness, then why not use them as a protection against sickness and ensure the proper physical and mental development of your children?
4. Most diseases are due to faulty diet, therefore, study your diet and include at least one egg a day.
5. The mineral elements (iron, calcium, magnesium, sodium, nitrogen, phosphorus, sulphur, etc.), contained in eggs assist in keeping the blood in proper solution, prevent clotting and at the same time enrich the blood.
6. Vitamins are essential factors in the diet. Failing a regular supply of vitamins, there can be no proper physical or mental development. Eggs contain at least two vitamins, therefore, include at least one egg a day in your diet.
7. Eggs should be the breakfast food of every person in the Union.
8. Egg contents, etc.

To assist this egg a day campaign, at least two National Egg and Poultry Weeks should be held every year. The best times for these appear to be the last week in July and the last week in December. During July eggs are plentiful, but it does not pay to export and during December the export season is over and too many eggs are produced to be stored for winter use. If consumption during these periods could be increased considerably, it would be of great assistance to the poultry industry.

During such National Egg and Poultry weeks, special meetings should be arranged and there should be a considerable amount of local advertising. Egg and poultry lunches, parties or picnics and a hundred and one other ways to attract the attention of the public and increase consumption may be invented.

Make it the fashion to eat an egg a day and it will be done.

To ~~reduce~~ ²⁰⁰³⁻⁰⁴ advertising costs, the necessary posters and other advertising media should be sold at cost price to all merchants, producers or poultry societies. Arrangements should also be made with the General Post Office to stamp all envelopes with suitable inscriptions. All envelopes despatched by the Department of Agriculture as well as the official correspondence of the Poultry Societies and producers should have a small round or square stamp bearing the inscription "Support the Egg a Day Campaign" or "Eat more Eggs," or "Support the National Egg Week." Local newspapers or even handbills should be of great assistance for increasing consumption. The value of eggs should be explained to school children, and they will again explain to their parents and in this way make eggs the breakfast food of every family.

It might be thought that the few extra eggs consumed in each village does not matter much, but it is the totals that are astonishing. If every European in the Union consumed one egg a day and basing eggs at 1d. each, the value of eggs consumed would be £2,590,000. If every non-European consumed one egg per week they would consume eggs to the value of £1,290,000 per annum. If every six Europeans consumed one head of poultry at 2s. each per week, they would consume poultry to the value of £1,480,000, per annum, and if every six non-Europeans consumed one head of poultry per month, they would consume poultry to the value of £1,190,000, that is the total value of poultry and eggs consumed in the Union per annum would be £6,550,000.

Every endeavour should therefore be made to increase local consumption and the future of the industry will be secured.