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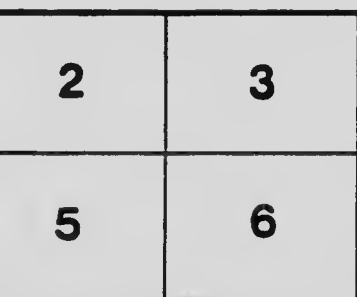
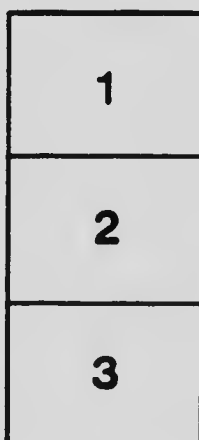
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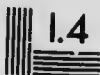
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MANITOBA AGRICULTURAL COLLEGE

Eggs from the Farm to the Consumer

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In looking over the eggs sold, we find that about ninety-five per cent. of them come from the farms, and the remainder from small poultry keepers in villages, towns and cities. Most of the farm eggs pass through the hands of the country storekeepers, then to the wholesale house, then to be candled and turned over to the jobber, or the retail trade, or put into cold storage to be kept for winter use.

The route over which they travel is not the best to give the consumer the best class of eggs, but it appears to be the one most commonly taken. The reason is simple. The most natural place for the farmer to sell his eggs is at the country store. Here he has the least trouble and gets the quickest returns either in trade or cash, whichever he prefers. The farmer's obligation ceases at this point. He has sold so many dozens at a certain price, and whatever happens from now on is of little concern to him.

Wastefulness of the Present System

The effect of this system is seen in the heavy shrinkage or loss that occurs when the eggs are candled at the wholesale houses. About two eggs out of every dozen have to be thrown out as not fit to eat. This loss aggregates thousands of dollars every year. It may not mean much to each individual farmer whether or not he has a few bad eggs in his lot; but when all the bad eggs are put together they form quite an item. But this is not all. Every egg that has to be thrown out raises the cost of living for somebody. The store-keeper pays for the bad eggs in the first place, and no one handling them after him is willing to bear the loss, so at the very end of the route the consumer is the one who has to pay. Just now, when everybody is talking conservation of food products, it is well for all those

**Every Egg is
Fresh when Laid.
It spoils only be-
cause it is badly
handled after-
ward.**

interested (from the farmer to the consumer) to "take stock" of the egg trade, and see if something cannot be done to overcome some of its losses. According to a United States Department of Agriculture report, the losses are divided as follows:

69% of them are due to conditions on the farm.

17% of the blame is attached to the country store, and

14% of the loss is attributed to conditions under which eggs are shipped, or the loss that occurs in transit.

In this province conditions are very much the same. Judging by these figures, the farmer is most to blame for the bad quality of eggs going to market. While he sustains the blame, and is responsible for his share of the trouble, still there may be a reason for conditions being as they are. At present the farmer receives no inducement to try to market better eggs. The storekeeper would help greatly if he offered the farmer a little inducement to bring in better eggs. Often a farmer who tries to sell the best of eggs, by looking after his poultry properly, gathering the eggs regularly, and selling only the best, becomes discouraged because his neighbor, who goes to no trouble at all, receives the same price as he gets with all his care. Right here the country storekeeper becomes responsible. If he would promise the farmers, say, two or three cents a dozen more for eggs of good quality, and of proper weight, paying a lower price for "cracked" and "dirties," and throwing out all bad ones, it would not be long until the farmers would see that eggs were all sold in good condition. Besides this, the store-keeper should be sufficiently informed on the production and care of eggs to give the proper kind of instruction to farmers.

There is no Argument for better Quality in Eggs that sounds quite so loud as Better Prices for Choice Goods.

The Farmer's Duty

In considering the question of preventing losses, the first step must be taken at the farmer's end. No matter when and how all the losses occur, unless the eggs are good when they leave the farm, they can never reach the trade in good condition.

In the spring the losses are very light, and all eggs are pretty much the same in quality. But as warmer weather comes the losses grow heavier and heavier. This is because eggs do not keep as well in warm as in cold weather. There are also more broody hens on the nests, more dirty eggs, more soiled and smeared eggs, and more "stolen nests," all of which, singly or in combination, help to increase the losses. Eggs produced under such conditions cannot leave the farm as first-class eggs. The egg shell is porous, and any filth or dirt adhering to the outside is likely to cause molds inside, especially during warm weather. This means bad eggs. Broody hens sitting on fertile eggs, even for only a few hours, naturally start the germs to grow, and such eggs are never fit for food. Eggs from "stolen nests" come in the same class. Eggs laid by a flock of hens having roosters with them never reach the consumer in as good condition during the warm summer weather as eggs laid by a flock with no roosters. In

Allowance for deterioration in transit 10 per cent., but none laid, i.e., eggs should grade at point of delivery 90 per cent. of grade named at point of shipment.

Definition of Grades

Specials—Eggs of uniform size weighing over 25 ozs. to the dozen or over 47 lbs. net to the 30 doz. case; absolutely clean, strong and sound in shell; air cell small, not over 3-16 of an inch in depth; white of egg to be firm and clear and yolk dimly visible; free from blood clots.

Extras—Eggs of good size, weighing at least 24 ozs. to the dozen or 45 lbs. net to the 30 dozen case; clean; sound in shell; air cell less than $\frac{3}{8}$ inch in depth; white of egg to be firm and yolk slightly visible.

No. 1's—Eggs weighing at least 23 ozs. to the dozen or 43 lbs. to the 30 doz. case; clean; sound in shell; air cell less than $\frac{1}{2}$ inch in depth; white of egg to be reasonably firm; yolk may be quite visible but mobile, not stuck to the shell or seriously out of place; cell not necessarily stationary.

No. 2's—Eggs clean; sound in shell; may contain weak, watery eggs and eggs with heavy yolks, and all other eggs sound in shell and fit for food.

Definitions of grades in class "Cracked and Dirties" to be same as for grades in Fresh Gathered class, except that the terms referring to soundness and cleanness are not to apply.

Pullet Eggs—Eggs which have the quality of Specials and Extras, but which fall short in weight, shall be known as **Pullet Specials**, or **Pullet Extras**, providing they weigh at least 23 ozs. to the doz., or 43 lbs. net to the 30 doz. case, in the instance of the former, and 20 ozs. to the doz., or 37½ lbs. net to the 30 doz. case, in the instance of the latter.

The Retail Stores

The retail stores of towns and cities form the chief distributing points for eggs. Quite a few stores draw direct on farming communities for their supply, and others get theirs from the wholesale dealer or jobber. Stores buying direct should adopt a system of candling and grading and give the farmers and their customers the benefit of it. The blame that can be attached to the retail stores for actual losses is small. At best they keep the eggs only a few days. They can, however, be criticized severely for their method of handling eggs. Eggs placed in store windows in the rays of the sun are sure to deteriorate rapidly. But very little art is shown in the way the average retail store displays its eggs. Placing eggs alongside fresh onions, for example, is sure to taint them.

Probably the severest criticism that can be passed upon the retail store is the fraudulent practice that many follow in selling eggs in the winter season. At such times eggs of any kind are high in price, and new laid eggs especially can hardly be obtained at any price. Some stores take advantage of this fact, and sell storage eggs as fresh eggs at prices that make the transaction nothing short of robbery. The inflating of prices and the inferior quality of eggs sold has caused more dissatisfaction among consumers generally than anything else.

In this discussion we have tried not to overlook any party through whose hands the eggs go before they reach the consumer. An effort has been made to show who is responsible for the present condition of the trade as a whole, where the losses occur, and how to avoid them. The matter rests entirely with these different parties. The consumers, at their end, will pay the price, but under present conditions, they

In Egg Improvement, as in all other Reforms, the best results will attend combined effort of all concerned.

4. Employ extra help on these days to candle the eggs.
5. Make different grades for eggs, putting all good, full weight eggs in one grade; small, cracked and "dirties" in another; and throw out all bad ones.
6. Make prices according to these grades.
7. **Show the farmer or his wife** how their eggs candle out.
8. Grade when shipping.
9. Use only good **clean fillers**.
10. Use strong cases.
11. Pack eggs properly.
12. Ship eggs twice a week during the warm weather.
13. When shipping do not set the cases in the hot sun.

The Trade in General

As previously pointed out, there is quite a little loss in eggs during transportation. The express and railway companies are to blame for some of it. Carelessness on the part of the employees is the chief reason for the loss. The claim, however, is made that if strong cases were used the loss in transit would be reduced almost to nothing. Be this as it may be, we see time and time again where the eggs shipped are submitted to pretty rough handling, which, under the conditions, seems entirely unnecessary. A good part of these losses are preventable, especially when the eggs are shipped by express. When shipped by local freight, the transportation, naturally, will be a little rougher. The United States Department of Agriculture found that the top fillers had twice as many broken as the others. It was further found that one egg out of every ten became cracked, smashed, or a leaker from the farmer to the consumer, and two out of every ten were so badly smashed as to be useless.

The facilities for handling eggs at the wholesale end are such that but small losses can occur. Cold storage systems are so perfected (in the larger cities at least) that there need be but little loss. Small losses, of course, are likely to occur wherever eggs are handled, and this section of the trade is no exception.

To what extent the wholesale dealer is to blame for the losses in eggs is hard to determine under the present system of marketing. The actual loss is never determined until the eggs reach his warehouse. There is no candling or grading done until the eggs come to him, so the actual losses are never determined until they reach this point.

Since the entire system of marketing eggs on a large scale revolves round the wholesaler, it might be well to show what his influence and work could accomplish were he to buy eggs on a graded basis. In some of the Eastern provinces the wholesale dealers are doing this now, and its effect on the improvement of the egg trade has been very pronounced. Western dealers could easily combine and agree to buy on the same basis. The effect of such a move would be even more pronounced on the Western egg trade than in the Eastern trade.

The method of grading adopted by the Canadian Produce Association at their Annual Convention in February, 1917, is given herewith in its revised form:—

Classes and Grades			
Classes—	Fresh Gathered.	Storage.	Cracked and Dirties
Grades—	Specials		
	Extras	Extras	
	No. 1's	No. 1's	No. 1's
	No. 2's	No. 2's	No. 2's

other words, non-fertile eggs keep better than fertile ones. A temperature of 80 F. for four hours will start the germ in a fertile egg to grow. Many days during the summer the weather is even warmer, so what class of eggs may we expect from many farms? To summarize, the farmer should pay attention to the following points:—

**This province pays
Thousands of Dol-
lars for the Priv-
ilege of Hearing
the Roosters Crow
all Summer Long.**

1. Keep the poultryhouse clean.
2. Separate the roosters from the hens after the hatching season.
3. Provide plenty of clean straw on the floor and in the nests.
4. Do not allow broody hens on the nests.
5. "Break them up" by putting in boxes with slatted bottoms raised off the floor.
6. Gather the eggs twice a day.
7. Keep them in a cool, dry place.
8. Sell them twice a week if possible.
9. Use clean cases and fillers.
10. Sell only the best eggs, candling out any poor ones, and also all small eggs.

What the Store-keeper Can Do

From what has already been said, the store-keeper can gather a few points that touch him directly. Besides this, there are a few other things needed before he has performed his duty toward the egg trade. The store-keeper should know what a good egg looks like, and be able to tell the difference between a good one and a bad one. To do this, he must know how to candle or test eggs; also he should know something of the nature and structure of the egg and its contents.

As the matter stands now, he sells all his eggs "case count," so many dozen to the case, regardless of whether they are good, not so good, or bad. Often the egg cases are weak, poorly made and battered up. This means a heavy loss in shipping them. Probably one of the worst practices of the country store-keeper is using dirty, broken, mouldy and damp fillers. Nothing that is done by the store-keeper causes such heavy losses as it tends to lower the general quality of the eggs, more than this. The points mentioned here stand between the store-keeper and the egg trade; and it is clearly the personal duty of each store-keeper to remedy them.

**The Store - keeper
who pays for Eggs
according to Qual-
ity is a Real Re-
former.**

The store-keeper and the farmer must co-operate in the best interests of the egg trade as a whole. A mutual understanding of the question as it affects both is required. There must be a "give and take" on the part of both. If anything is to be done in egg trade improvement, the store-keeper must change his system of buying. At present he knows that he is getting some bad eggs; also he knows that he is paying for them at the same rate as for good ones. This is poor business. Summarizing the store-keeper's duties they are as follows:—

1. Candle all eggs when they are brought in.
2. Have one or two "Egg Day" a week.
3. On these days pay two or three cents a dozen more for all eggs that are of good quality and of proper weight.

never know what they will get. There is a limit to the consistency of price and quality. When consumers pay present prices, they simply must receive better quality eggs, or the consumption of eggs will decrease. If consumers get better eggs, they will eat more and if they find they can get better eggs by buying more directly, gradually they will eliminate the middle men. It is, therefore, clearly the duty of all having an interest in the egg trade to do everything in their power to get the egg on the market in the best possible condition.

Private Egg Trade

Large numbers of farmers sell their eggs direct to private parties. This, of course, is the shortest route from the producer to the consumer, and tends to give the consumer the best article possible. This system of selling eggs is especially adapted to conditions where the producer and the consumer know each other, and where limited quantities change hands. It is a system that takes in only a fraction of the trade. Under this system the farmer can deal direct with the consumer, or through a retail store. The capacity of such a store is usually limited, and, therefore, in the season of heavy production the farmer has to look for another outlet for his surplus product. The system necessarily must be restricted in its scope, and therefore cannot form a very big part of the trade.

Carton Egg Trade

Many of the wholesale houses put up special brands of carton eggs. These brands are usually the best eggs candled out of the case, as they are received from country points or as they come out of storage. These are distributed to the consumers through the retail stores. None of these can be classed as new laid eggs, but, nevertheless, they usually are a pretty good grade of eggs. Retail stores often take eggs sent in from the farm, and put them up in dozen cartons for their special trade. There is only a limited demand for these eggs. The price the consumer pays for them must be enough higher than for the ordinary eggs as to cover the extra cost of handling and the price of the carton as well. In the fall and winter months, when eggs are rather scarce, there is usually a pretty good demand for these.

Under the systems of marketing as outlined herein, it will be seen that new laid or what may be considered as eggs not over five days old are very scarce in any city. At the same time, there is in any city a very good demand for such eggs. For the sick room and for fancy trade these eggs are in very high demand. The condition created by this demand is such that any farmer within reasonable distance of a city could, in a short time, work up a high class trade in new laid eggs. New laid eggs, stamped and put up in dozen cartons, will bring a premium on any market. Farmers who have large flocks of hens, and are getting a good supply of eggs, will find this an especially good way to sell eggs, provided they guarantee them, and live up to their guarantee. Practically all retail stores have a fancy trade where these eggs will work in nicely. During the two or three months of heavy production and before the quality of the average run of eggs falls off, the demand for these eggs is not so keen; but during the rest of the year there is an exceptionally good demand for them.



