

take both good and bad quality of hogs; for the reason that he does not see the hogs till they are in his yards, and also because the real quality of the meat cannot be detected till the hog is cut up. He can of course instruct the drovers not to buy certain classes of hogs, or refuse to purchase hogs from certain districts, but so far as the real quality of the hog is concerned it cannot be known till after the slaughter-house has been passed. In Denmark and Ireland the situation is quite different. The hogs are taken to the packing houses direct by the farmer. The hogs are killed and then graded according to quality, after which the farmer is paid a price in keeping with the quality of his hogs. This practice cannot be followed in this country, and consequently the packer is to a certain extent at the mercy of the farmer as to the kind of bacon he is going to get from the hogs he buys. The packer, though realizing his position very keenly in this regard, feels that in the long run this condition of things must react upon the producer if the quality of the bacon is not of the best.

Mr. Flavelle is of the opinion that there is too strong a tendency to force young pigs along. The farmer seems to be in too big a hurry to realize, and forces his hogs too much and too quickly after they are weaned. "His tends to produce a short, stout hog, the very opposite of what is required for the bacon trade. To guard against this a young pig should have food for the first four months that would cause it to grow and gain in length, developing flesh and muscle rather than fat. After this, and till the pig is six and a half or seven months old, when it should be ready for market, good substantial food, such as chopped peas, oats, barley or shorts, should form the main part of its diet. During the last three months no corn, clover, or foods that will produce a soft quality of pork, should be given.

Many do not fully realize the extent to which corn is fed to hogs even in Ontario. This practice exists more in Western Ontario than in the other half of the province. In some sections the packers are refusing to buy the hogs because they are afraid of the corn feeding. Mr. Flavelle instances a case where out of 765 sides from one district in Western Ontario 465 were soft and secondary in quality. We are also informed that at many of the cheese factories where hogs are fed corn is fed in conjunction with whey. While whey is a good food for hogs it must be fed with food such as shorts, ground oats, barley, peas, etc., to get the best results. Corn and whey are fat producers, and when fed together produce oily fat and somewhat soft pork. We state these facts plainly, because we believe it to be in the best interests of our bacon trade to do so. Though it is necessary to have the right type of hog to begin with, yet the great difficulty with the bacon trade at the present time is more a question of feed than of breed.

The following cable, received by the Wm. Davies Co. on June 30th, will give a fair idea of the present condition of the export bacon trade in small and secondary sides:

"Market overdone with all kinds of small and secondary soft product. Quantity arriving in a forward condition, meaning forced sales at 32s. to 36s."

These figures are from 11s. to 15s. less than the bacon cost to produce, and must mean a loss to somebody, which will eventually react upon the farmer. We do not quote the above because we wish to show the market to be in a dilapidated condition, but as a word of warning. Prices for the right quality of bacon are still good, but for this soft, secondary quality only a demoralized market exists. A word to the wise should be sufficient, and we trust that every feeder will take the lesson home, and only produce the kind of hog the market requires.

Selling Eggs by Weight.

Apart from quality and freshness, the weight of an egg is an important factor in determining its market value. In Great Britain, the gradation of

value by weight is by half pounds, what are called "ordinaries" weighing $13\frac{1}{2}$ pounds, and "re-selected" weighing $15\frac{1}{2}$ pounds per long hundred (120 eggs). As our export trade in eggs is with the United Kingdom, and, as we are endeavoring to develop that trade, it is important that our poultrymen should accustom themselves to selling eggs by weight. In fact, if the export trade is not considered, it would be better for both producer and consumer if all eggs on the local markets were sold by weight, and not by the dozen, as is now the case. At present, with a uniform price of say ten cents per dozen, neither the one nor the other gets justice. A producer should get more for large eggs than for small ones, and likewise the consumer should be willing to pay a higher price for the larger eggs than for the smaller ones. The only fair way, then, of regulating the price is to sell the eggs by weight only.

England imports a large number of eggs every year from Russia, and in connection with this trade some valuable data have recently been secured of interest to poultrymen. The weight of Russian eggs varies considerably—from less than 1.6 ounces to 2.13 ounces each egg, or from $12\frac{1}{2}$ pounds to 16 pounds per 120 eggs. The weight of Russian eggs represents on the British market a value averaging about 6d. per pound. Imported eggs, packed in straw and woodwool, lose on an average from .75 grains to 1.20 grains per egg daily during transit. During cold and damp weather this evaporation falls to .45 grains, and in dry and warm weather rises to 1.80 grains per egg daily. In the autumn evaporation during transit is about one-half the general daily average, and in summer about double the annual daily average, or about four times greater in hot weather than in cold. One striking fact brought out is that the evaporation is influenced by the size and form of the egg. During transit it has been found that eggs weighing $13\frac{1}{2}$ pounds per 120 lose almost double of that of eggs weighing 16 pounds per 120, and with very small and long eggs the loss in weight assumes a still greater disproportion.

On an average the Russian eggs are from five to six weeks old by the time they reach the British retailer. The average daily loss from evaporation during this time is about 1.10 grains per egg, or an average loss of from 8 to 10 pounds upon every 1,440 eggs before they can be marketed in England. Newly-laid eggs gathered in the district of Jamboff, and weighing $15\frac{1}{2}$ pounds per 120, were less than 15 pounds on delivery in London; also new-laid eggs, weighing $13\frac{3}{4}$ pounds at Kazan, were much less than 13 pounds when received in Hull, and loss from this cause represented a diminished trade profit averaging from 5s. to 8s. per case, exclusive of waste from other sources. In 1896 Russia sent about 1,000,000 cases of eggs to England.

In writing on the export egg trade in the issue of May 31st we gave the experience of a Glasgow merchant who claimed, that aside from the question of weight, the larger eggs were worth more than the smaller eggs, because they were of better quality. In connection with the above facts concerning the Russian trade another important point is brought out, and that is, that the smaller eggs will lose considerably more through evaporation than the larger ones. In the Agricultural and Dairy Commissioner's report mentioned elsewhere a shipper is quoted as stating that 90 per cent. of the stale or bad eggs have been small eggs with white shells. There is a good demand in Great Britain for eggs weighing fifteen pounds per 120. For every half-pound which eggs weigh less than fifteen pounds per great hundred the value is lessened by about one cent per dozen. Eggs for the English market should be graded into three sizes, large, medium and small.

From the above data it will be seen that in many respects the larger eggs are superior to the smaller ones. Then why should not a higher price be paid for the larger eggs? In Great Britain, whether the eggs are purchased by weight or by the dozen the larger eggs will command the higher prices, which, if figured out, will be found to be more

per pound for the larger eggs than is received per pound for the smaller eggs. With the exception of a few of our larger cities the weight of an egg is considered very little in buying or selling eggs. The farmer takes his eggs to the local market, and, as a rule, whether they are large or small, he will get the same price. This is evidently unfair. If, as has been proven, the larger eggs are worth more than the smaller ones, then the producer should be paid accordingly. Until some such method is adopted in the local trade our farmers will never be induced to produce the quality of eggs that will command the highest prices in the British markets.

The Success of the Export Butter Trade Depends Upon Co-operation.

Normandy butter is getting into disrepute. Its great fault is lack of uniformity. This is accounted for by the fact that the butter is made at private dairies working independently of each other. An effort is now being made to introduce the co-operative principle and have the butter made at central factories. Unless something of this kind is done the former extensive trade in Normandy butter will be a thing of the past.

We have had the same difficulty to contend with in Canada. Fifteen or twenty years ago Canada was exporting more butter than she is doing now; but the quality of the butter sent over then was very varying in quality. There were almost as many different colors, grains and flavors as there were packages, and the consequence was that as soon as the British consumer found that he could get a more uniform and better quality of butter elsewhere he quit buying the poor Canadian stuff. Since then a new feature has entered into the butter-making industry of this country, and to day the co-operative creameries of Canada are sending over a quality of butter that in nearly every respect is equal to any butter placed before the British consumer. In this way the Canadian creamery men are building up an export trade in butter that is likely to assume very large proportions in the near future.

The essentials of good export butter are: Mildness of flavor, evenness and lightness in color, neatness of package, and uniformity throughout. These can best be secured where large quantities of butter are desired, when the butter is made in central creameries on the co-operative plan. By a number of dairymen co-operating in this way more uniform and up-to-date methods of manufacturing can be taken advantage of and a great saving in the cost of making and of marketing and of transportation secured. By adopting the separator method more and a better quality of butter can be made than by making butter on the old plan, and using the gravitation method of separation.

It is well to notice, however, that because a dairyman is supplying his milk to a co-operative creamery he is not relieved of all responsibility in regard to the quality of the output. As with the co-operative cheese factory so with the co-operative creamery, the patron or the man who supplies the milk has great and important duties to perform which, if neglected, will materially injure the success of the co-operative scheme. These duties are all connected with the care of the milk or cream before it leaves for the factories. To make a success of any enterprise a right start must be made. The dairyman begins to make butter or cheese the moment he begins to take the milk from the cow. In fact it may be said that he makes a commencement when he feeds or waters his cows. How very essential it is, then, that everything in the initial stages of the process should be done in the proper way. Pure water, succulent food, and the practice of cleanliness and care in preparing the milk or cream for the creamery, are the points that should be given strict attention by the patron.

In contending for the co-operative principle in the manufacture of butter for the export trade, we do not hold that good butter cannot be made in