

# Agriculturist and Canadian Journal.

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## CHEESE DAIRIES.

In this number we have given the remainder of an article, being the report of a committee of New York State Agricultural Society, on the above subject, copied from the Transactions of the Society. The remarks of the committee, as well as the matter taken from the work of Mr. Youatt, are worthy the attention of every farmer who is in a situation to follow the business of cheese and butter making. It is by seeking the best information that can be had, and endeavoring to make it our own, that we may expect to attain to perfection in the several branches of domestic economy. The bad butter and the inferior cheese that are brought to market in the different towns of Canada, are a reproach to our farmers. Too much attention has been given to raising grain, or, we should rather say too exclusive attention. Cheese has been made in such small quantities, that it has not been thought worth much trouble or care. We hope, soon to see signs of improvement, and to see on the shelves of our grocers, an article of home manufacture, that will take the place of what is now imported:—

*Cheshire Cheese* is generally made with two meals of milk.

"The general custom is, to take about a pint of cream, when two-meal cheeses are made, from the night's milk of twenty cows. In order to make cheese of the best quality, and in the greatest abundance, it is admitted that the cream should remain in the milk. The more common practice is, to set the evening's milk apart till morning, when the cream is skimmed off, and three or four gallons of the milk are poured into a brass pan, which is immediately placed in a furnace of hot water, and made scalding hot; then half the milk thus heated, is poured into the night's milk, and the other half is mixed with the cream, which is thus liquified, so as when put into the cheese tub to form one uniform fluid. The morning's milk is then immediately added to that of the evening, and the whole mass is at once set together for cheese.

"The rennet and colouring being then put into the tub, the whole is well stirred together; a wooden cover is then put into the tub, and over that is thrown a linen cloth. The usual time of 'coming' or surdling, is one hour and half, during which time it is frequently to be examined. If the cream rises to the surface before the mixing takes place, as it often does, the whole must be stirred together so as again to mix the milk and cream; and this as often as it rises, until coagulation commences. If the dairy woman finds that the milk is cooler than was intended, or does not come on account of coolness, hot water or hot milk may be poured into it. This must, however, be done before it is all coagulated, for the forming of the curd must not be tampered with. If it is too hot, the opposite means may be resorted to; but the more general practice is to suffer the process to proceed hot as it is, until the first quantity of whey is taken off, a part of which, being set to cool, is then returned into the tub to cool the curd. If too little appears to have been used, it renders the curd exceedingly tender, and an additional quantity may be put in; but this must be done before the coagulation takes place; for if added afterwards, it will be of little effect, as it cannot be used without disturbing the curd; which can then only acquire the proper degree of toughness; by having heated whey poured over it.

"When coagulation is formed, a point which is determined by gently pressing the surface of the milk with the back of the hand; but in this test experience is the only guide, for the firmness of the curd, if the milk be set hot together, will be much greater than that from the milk which has been set cold together. If the curd be firm, the usual practice is to take a common case-knife, and make incisions across it to the full depth of the blade, at the distance of about one inch, and again crosswise in the same manner, the incisions intersecting each other at right angles. The cheesemaker and two assistants proceed then to break the curd, by repeatedly pressing their hands down into the tub, and breaking every part of it as small as possible; this part of the business being continued until the whole is uniformly broken small; it generally takes about forty minutes, and the curd is then left covered over with a cloth, for about half an hour to subside.

"The bottom of the tub is set rather airt, the curd is collected to the upper side of it, and a board is introduced of a semi-circular form, to fit loosely one half of the tub's bottom. This board is placed on the curd, and a sixty pound weight upon it, to press out the whey, which draining to the lower side of the tub, is ladled out into brass pans; each part of the curd as are pressed from under the board, are cut off with a knife, placed under the weighted board, and again pressed; the operation being repeated again and again, until the whey is entirely drawn from the curd. The whole mass of curd is then turned upside down, and put on the other side of the tub, to be pressed as before. The board and weight being removed the curd

is cut into pieces of eight or nine inches square, piled upon each other, and pressed both with the weight and hand; these several operations being repeated as long as any whey appears to remain.

"The next thing is to cut the curd into three nearly equal portions, one of which is taken into a brass pan, and is there by two women broken entirely fine; a large handful of salt being added and well mixed with it. That portion of curd being sufficiently broken, is put into a cheese vat, which is placed to receive it, on a cheese ladder, over the cheese tub; the vat being furnished with a coarse cheese cloth. The second and third portion of the curd are treated in the same manner, and emptied into the vat; except that into the middle portion eight to ten times the quantity of salt is usually put. By some dairy women, each portion is salted alike, with no more than three large handfuls to each.

"The curd, when put into the cheese-vat in its broken state, is heaped above the vat in conical form, to prevent it from crumbling down, the four corners of the cheese-cloth are turned over it, and three women placing their hands against the conical form, gently, but forcibly, press it together. So soon as the curd adheres together so as to admit of it, a small square board, with a corner of the cloth under it, is put on the top with a 60 lb. weight or a lever is pressed upon it. Several iron skewers are at the same time stuck in the cone, as well as through holes in the side of the vat, from which they are occasionally drawn out and fixed in other spots, until not a drop of whey is discharged. The weight and skewers are then removed, and the corners of the cloth are either held up by a woman, or by a wooden hoop, while the curd is broken as small as possible, and skewering is repeated. The women then take up the four corners of the cloth, while the vat is drawn away and rinsed in warm whey; a clean cloth is then put over the upper part of the curd, and it is returned inverted into the vat. It is then broken half way through as before—these operations occupy from three to four hours."

"When no more whey can be extracted by these means from the cheese, it is again turned in the vat and rinsed as before in warm whey. The cloth now made use of is finer and larger than the former, and is so laid, that on one side it shall be level with the edges of the vat, and on the other wrap over the whole surface of the cheese; the edges being put within the vat, thus perfectly enclosing the whole mass. In this stage of the business the cheese is still higher than the edge of the vat; and to preserve it in due form, recourse is had to a binder, about three inches broad, either as a hoop, or as a cheese-fitter, which is a strong, broad coarse sort of tape, which is put round the cheese, on the outside of the cloth, and the lower edge of the binder pressed down within the vat, so low as that the upper edge of it may be level with the surface. The cheese is then carried to the press, and, a smooth strong board being placed over it, the press is gently let down upon it, the usual power of which is 14 or 15 cwt. In most dairies, however, are two presses, and in many three or four, of different weights; the cheese being by some put first under the heaviest, and by others under the lightest.

"As soon as the cheese is put in the press, it is immediately well skewered—the skewers being of strong wire eighteen or twenty inches long, sharp at the points and broad at the end; the vat and binder having holes, seldom more than an inch asunder, to receive them. As the press always stands near the wall, only one side of the cheese can be skewered at the same time, and it must therefore be turned half way round, whenever that is necessary; but this occasions no inconvenience, as the skewers must be frequently shifted, and many more holes are made than skewers to fill them. In half an hour from the time the cheese is first put in the press, it is taken out again, and turned, in a vat, into another clean cloth, after which it is returned to the vat; but is by some persons previously put naked into warm whey, where it stands an hour or more for the purpose of hardening its coat. At six o'clock in the evening the cheese is again turned, in the vat, into another clean cloth, and some dairy women pick its upper surface all over an inch or two deep, with a view of preventing blisters. This can be remedied if they occur by opening them with a penknife, and pouring hot water into the incision; then press down the outer side, put on a little salt, and place a piece of slate with a half pound weight on it. At six o'clock the following morning it is again turned in the vat, with a clean cloth as before, and the skewers are laid aside; it is also turned two or three times more, both morning and evening, at the last of which finer cloths are used than at first, in order that as little impression as possible may be made on its coat.

After the cheese has remained about forty-eight hours under the press, it is taken out, a fine cloth being used merely as a lining to the vat, without covering the upper part of the cheese, which is then placed nearly mid-deep in a salting tub, its upper surface being covered all over with salt. It stands there generally about three days—is turned daily, and at each turning well salted, the cloth being changed twice in the time. It is then taken out of the vat, in lieu of which a wooden hoop is made use of, equal in breadth to the thickness nearly of the cheese, and in this it is placed on the salting bench, where it stands about eight days, being well salted all over, and turned each day. The cheese is then washed in lake-warm water, and after being wiped, is placed on the drying bench, where it remains about seven days; it is then again washed and dried as before, and after it has stood about two hours it is emptied all over with about two ounces of