

## DAIRY.

**The New Toronto Dairy Building and Exhibits.**

For years the dairymen and manufacturers of dairy machinery have complained of the poor facilities afforded them at the Toronto Industrial Exhibition for showing their produce and apparatus. It must be admitted now that the cause of complaint has been effectually removed by the erection of the handsome new dairy building, which is a credit to the Industrial Fair and a compliment to Canada's greatest industry. The building is well adapted for the special purpose that it is intended to serve, and at the same time stands as an object lesson in cheese-factory and creamery construction that cannot fail to have an influence for good along a line where improvement is much needed. It is, without doubt, the most substantial and best adapted building ever erected on this continent for the purpose of a dairy exhibition. Owing to the late and hurried completion of the building, the arrangements for showing the cheese and butter were more or less of a temporary nature, but we are assured by Chairman MacLaren that before another year great improvements will be made in this respect.

In the line of apparatus there was a very large showing of cream separators, all the leading makes being well represented in different styles and sizes. A new feature this year was the installation of a complete mechanical refrigeration plant, of the Linde-British type, in full working order, by means of which the butter cases were kept at such a low temperature as to preserve the contents in perfect condition.

**BUTTER AND CHEESE.**

There was a splendid exhibit of butter and cheese, especially of the latter. Mr. J. A. Ruddick, who was judge of all the dairy produce, stated that the quality was finer than anything he had ever seen at an exhibition before. This statement, coming from Mr. Ruddick, with his wide experience, and his habit of criticising frankly when he finds defects in Canadian dairy products, should be very gratifying and encouraging to the cheesemakers. Of course, as was pointed out in the Sept. 1st "Farmer's Advocate," the season has been a very favorable one for cheese-making, owing to the cool weather that has prevailed. Some idea of the excellent quality of the exhibits may be gathered from the fact that on the first scoring of the white August cheese Mr. Ruddick made only six points of difference in quality, and in order to make the sequence in prizes it was necessary to show a greater difference in the scoring than the difference in quality called for. The great majority of the exhibitors who failed to win prizes have no reason to be discouraged, or ashamed of the result, because the prizewinners were selected on the merest points of difference, differences which would not be recognized on a commercial basis. It is worth while noting that some lost on slight defects of finish; that is to say, when the quality was considered equal, the best finished cheese carried off the honors. The cheese on exhibition which were made during the months of June and July, while showing the characteristics of "heated," were, in the judge's opinion, of much better quality than what was shown last year.

In the creamery butter sections there were some very fine samples. First prize in export butter went to the Compton Model Farm in the Eastern Townships. The score-cards for the butter do not show the same uniformity of quality as those for cheese do, the principal defect being in the flavor, which was described variously as "cowy," "sour" and "cheesy," "not clean" and "strong." A marked improvement in style and finish was apparent to anyone who has observed these things at all closely in the past. There was one exhibit of dairy butter, however, covered with a cloth that had previously been used for other purposes.

**THE BUTTERMILKING COMPETITIONS**

created a great deal of interest, as evidenced by the crowded state of the amphitheatre whenever any work was in progress. Indeed, it is safe to say that if there had been seating accommodation for thousands instead of for hundreds it would have all been occupied at times. It is weary work tramping about the Exhibition grounds and buildings; therefore, any place where one may enjoy a rest while having the pleasure of such interesting operations is sure to be popular. For those who look on out of mere curiosity, what is a prettier sight than to see deft-handed young ladies, appropriately attired, lifting the golden grains from the churn, and, by skilful manipulation, shaping them into the standard one-pound prints of finished butter! For those who would learn of the art of buttermaking, a high-class instruction is afforded.

Mr. Henderson, manager of the Windsor Salt Co., on observing these competitions, was so well pleased with them that he added \$20 to the first prizes, making them \$60 each.

**Aeration of Milk.**

It has long been known that animal odors and taints may be removed by aeration. Proper aeration will do it. However, aeration and cooling must not be confounded in this matter. Cooling apparently removes odors and taints, but such disappearances are due to the chilling of the milk, under which condition the milk gives up the volatile substances with reluctance, doubtless owing to the reduced power of volatility of the substances themselves when cold. When such odors and taints are removed by aeration the removal is permanent unless they are generated by bacteria which continue to grow after aeration. Odors and taints may be due to any one of the following causes:

1. Absorption of gases from the air by the milk.
2. Physiological processes of the cow.
3. Disease processes of the cow.
4. Bacterial growth in the milk.
5. Introduction of odoriferous substances into the milk.

Odors in the air emanate from fermentations, foods, etc.; aromatic food substances are likely to pass through the body and be secreted in the milk; a high temperature in an animal is likely to reveal itself in the milk; many taints arise from bacterial development in the milk; and frequently sufficient filth gets into the milk to give it a distinct flavor—all of these or any one of these causes may be the immediate producer of odor or taint.

How aeration should be conducted is a matter of considerable importance, consequently we have added a few suggestions:

1. Aeration should be conducted at body temperature.
2. Aeration should be carried out over the most extensive surface possible and as slowly as possible.
3. Aeration should take place only in a pure atmosphere.
4. Aeration is best accomplished immediately after milking.
5. Aeration should precede cooling.
6. Aeration and cooling simultaneously conducted cannot yield the most satisfactory results.—(Chas. E. Marshall, Michigan Experiment Station.)

**Western Dairymen's Association.**

At a directors' meeting of the Western Ontario Dairymen's Association, in the Toronto Exhibition offices, Sept. 9th, a special course at the Guelph Agricultural College was recommended for instructors. Correspondence was read respecting branding dairy butter as creamery, and it was decided to call the attention of the Department of Agriculture at Ottawa to this matter, with a view to preventive legislation.

A grant of \$150 was made to the dairy department of the Toronto Exhibition, and \$50 to the Western Fair. The latter fair is to be asked to make better provision for dairy exhibits.

It was decided that the annual convention of the Association shall be held at Brantford on Tuesday, Wednesday and Thursday, January 13, 14 and 15. In connection with the convention there will be held a Winter Dairy Exhibition for September and October cheese, both white and colored, and for creamery butter, for each of which very handsome prizes of \$50, \$25 and \$10 will be offered, and for print butter prizes of \$15, \$10 and \$5. Cheese buyers and bankers interested will be asked to grant special prizes in the shape of trophies and sweepstakes for the highest scoring cheese and butter.

Messrs. Eagle, Millar, Connelly and Steinhoff were appointed a committee to look after the programme for the convention.

On motion of Mr. Harold Eagle, seconded by Mr. John Scott, a resolution of thanks to the Toronto Fair directorate was unanimously passed in providing a dairy building which is so well suited for the proper exhibit of the dairy produce, enabling the dairymen to exhibit their goods under the most favorable conditions in the history of the Dominion. It was recommended that the refrigeration be retained as a permanent part of the building, but that pipes be removed from the center to the outside of the interior.

**Cow Withholding Milk.**

We have a three-year-old heifer that holds up her milk. Some days she will only give about five quarts, when her accustomed milking is ten quarts. Is there any remedy? Kindly let me know in your next issue. W. H. C. ROBLIN.

Prince Edward Co., Ont.

Ans.—The habit of withholding a portion of her milk, into which your heifer has fallen is due to a nervous affection arising from excitement or fear caused at milking time. Treat her as kindly as possible, and when tied in to be milked each time supply a quantity of bran and chop or other palatable food sufficient to keep her eating while being milked. A satisfied disposition on the part of any animal is necessary to a large flow of milk. Aim to create it in your heifer and you will be rewarded.

**The First-class Buttermaker.**

A strictly first-class, up-to-date buttermaker should be of mature age and have some experience and considerable dairy education. He should be possessed of a good head, strong arms and willing hands, and be honest and upright. Of mature age, so that he will attend strictly to business and act like a mature person should. Of experience, that he may avoid the mistakes sure to overtake the inexperienced often. He should have considerable dairy education, that he may be able to apply the experience of others and disseminate the necessary knowledge among his patrons. Possessed of a good head, that he may do at least a part of his own thinking, and apply it practically, as well as being competent to manage a business requiring exceptional judgment. Strong arms and willing hands, that he can and will do the work thoroughly and completely. Honest and upright, that he can and will treat all his patrons, as well as the association or company, fairly, and always do the proper work at the proper time.

He should have some knowledge of arithmetic, engineering, machinery, carpentering, bacteriology and chemistry, be an expert with the Babcock test, and be clean, neat and accurate in all things.

He should have some knowledge of arithmetic, judgment in taking it in, so that he may not injure the quality of his goods.

His aim should be to produce the largest quantity and the finest quality of butter at the least possible cost, and the nearer he approaches this standard, the more valuable are his services, and, so far as he is concerned, the nearer perfection has modern buttermaking become.

Most anybody can make good butter some of the time, but few can produce perfect butter at all times. GEO. DUNFORD.

## POULTRY.

**Skim Milk for Poultry.**

Another way of disposing of the surplus skim milk with profit is to feed it to the poultry. As a feed for poultry, it furnishes the material for making growth in a palatable, easily-digested form. For this reason it is especially valuable as an addition to a grain ration which is liable to lack in the materials to make growth. The Indiana Experiment Station fed two lots of growing chickens exactly alike, except one lot was given all the skim milk it would eat, in addition to the grain ration. The lot having grain, but no skim milk, made an average gain of 2.62 ounces per week. The lot receiving skim milk made a gain per week of 4.46 ounces. The conclusion of this experiment was as follows:

"If skim milk be added to the ration fed young chickens, it will increase the consumption of other foods given. The greatest increase in gain was coincident with the period when the greatest amount of skim milk was consumed. Skim milk is especially valuable as a food for young chickens during the hot, dry weather, and becomes of less importance as the chickens grow older and the weather becomes cooler."

The New York Experiment Station found skim milk a very economical feed for producing growth in chickens. In these experiments the skim milk was valued at 25 cents per hundred pounds, but some careful poultry-feeders believe 50 cents per hundred not too high a valuation. Skim milk can be fed sweet or after it is quite thick and sour. It is necessary, in feeding it in any form to poultry, to take great care that the troughs or utensils in which it is fed be kept clean. Lack of attention to this point is about the only cause of poor results from feeding skim milk as an addition to the grain ration for poultry.—(Missouri Experiment Station Bulletin.)

**Drawing Roosters.**

A school teacher in one of the charming rural suburbs of Philadelphia, where fancy gardening and the raising of "Philadelphia fowl" are general among the residents, recited to the class the story of the landing of the Pilgrims, and as the children had been taking up the work, she requested each scholar to try and draw from the imagination a picture of the Plymouth Rock. Then it was that the little fellow got up and raised his hand.

"Well, Wilkie, what is it?" asked the teacher. "Please, ma'am, do you want a hen or a rooster drawn?" came the unexpected reply.