

were plowed to a great depth. In many cases the preparation for a seed bed has been made with cultivators, in the fall for fall wheat and rye, and in the spring for spring crops, and as good and often better crops have been the result. For a catch of grass and clover seed the firm under soil with the fine tith on top is almost ideal.

For all light soils shallow plowing and working is preferable. With heavier soils, however, the question of drainage and the mechanical texture of the soil have something to do with the depth to which plowing should be done. For keeping weed seeds near the surface the shallow plowing of the soil is preferable.

Creamery Department

Butter Makers are invited to send contributions to this department, to ask questions on matters relating to butter making and to suggest subjects for discussion. Address your letters to the Creamery Department.

Better Cold Storage in Creameries Needed

A crying need in the creamery business at the present time, is better cold storage facilities at the creameries. From investigations made last season, by Mr. Frank Hearn, chief instructor, we learn that the average temperature of the cold storages at creameries in western Ontario, was 52 degrees. This is too high for the proper cooling and keeping of butter. Mr. Hearn also states that 29 of these cold storages are in good condition, 18 in fair condition, and 13 in very poor condition. This accounts for only 60 of the 77 creameries in operation in western Ontario last season. There must therefore, be 17 creameries which have no cold storages at all for keeping butter. At any rate, only a little over one third of the creameries have cold storages that are in good condition.

The conditions which apply in western Ontario, will apply in other parts of Ontario. Just as better curing facilities are one of the crying needs of the cheese industry, so better cold storages or means for keeping and "curing" butter are urgent needed in the creamery business. It seems difficult to get people to understand that anything more is needed, after a good quality of cheese or butter has been turned out. They are slowly learning, however, and at considerable cost, too. No article of food produced will deteriorate more quickly under unfavorable conditions than butter. It is safe to say that a large proportion of the defects in Canadian creamery butter is due to the unfavorable conditions surrounding it after it is made. Butter should be kept as near to the freezing point after it is made, as possible. Mr. Hearn's investigation shows that the average temperature in creamery cold storages is about 20 degrees above that point. We may infer that the 29 creameries, with good cold storage facilities, have kept the temperature down to near that point, or below 40 degrees at any rate. If this be true, then the temperature at which butter was kept in the remainder of the creameries must have been very high to bring the average up to 52 degrees.

The lack of proper storage for butter is shown by the experience with the refrigerator car facilities for the carriage of butter. There was some improvement the past season, but the temperature at which butter is loaded on the cars is far too high to get the fullest benefit from the transportation facilities provided. The ideal

place is low temperature at the creameries, and low temperature while the butter is in transit to the consumer. This ideal has not been reached yet, and will not be till every creamery has proper facilities for cooling butter and keeping it at a low temperature until it is put on board the train. The refrigerator car facilities provided last season were as good as could be reasonably expected under the circumstances. It is up to the creameries to do their part, and supply those cars with butter properly cured and in a condition to be carried to its destination without any danger of deterioration in quality.

Creamery Butter-makers' Salaries in Denmark

They have been wrestling with the makers' salary question in Denmark and endeavoring to establish a basis to work on. Owing to the increasing interest in this question in Canada, the following from one of our exchanges will be of interest. It is the scale of salaries recommended at a recent meeting of the Jutland Creamery Association:

Creameries with million pounds of milk	Gross salary of manager including salary to help	Cash	Board
1	\$ 420	\$ 97	\$ 54
2	634	162	108
3	870	270	135
4	1,062	324	162
5	1,136	367	189
6	1,203	394	216
7	1,263	421	243
8	1,391	475	270
9	1,510	513	297
10	1,618	540	324

In the gross salary is calculated in cash value all supplies, such as income from garden, fuel, light, milk, cream, etc., only not the dwelling which is provided free. The salary is calculated to be normal for creameries where no cheese is made and where extensive retail sales are not made. The labor cost of making up 1,000 lbs. of milk will thus vary from 42 cents for the one million creamery down to 16.2 cents for the ten million creamery.

This table would indicate that Danish butter-makers are not over paid in the way of salaries. In a creamery receiving 10,000,000 lbs. of milk, \$864 has to be paid out of the gross amount the manager receives for help and board, leaving a balance of only \$752 out of which have to come other things. How do these salaries compare with what makers receive in

Care of Milk by the Householder

At the New York State Fair prizes were given for the best essay on the care of milk by the consumer. The first prize was won by Mr. B. Publow. The following are some hints from his essay worth noting:

1. Bottle milk is practically free from outside contamination and is the preferable form for purchasing it.

2. Can milk is liable to contamination from dust, from heat, and from strong-smelling substances in the refrigerator.

3. The top and outside of the bottle should be rinsed off with warm water before being opened, as the milkman usually carries the bottles by the top or neck, and more or less dirt and bacteria are certain to be transferred to the outside of the bottles.

4. Place the milk at once in a refrigerator, in cold water or in a cellar. Keep the covers on the bottles as it prevents material falling in, and also prevents absorption of odors.

5. Wash and scald the bottle as soon as empty.

6. Clean vessels only should be used for holding milk sold by measure.



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These should have tight fitting covers.

7. Never mix fresh and stale milk as all becomes tainted or sour in a short time.

8. Milk slightly sour can be sweetened by the addition of a small amount of lime water. Pasteurization will add to its keeping quality. This latter is not good policy, but it is a remedy for a common evil.

9. Do not buy milk because it is cheap, for usually it is the dearest in the end.

Items

Dish-cloths should never be used around dairy utensils. They are too hard to clean. Use a stiff brush instead.—J. N. Paget, Haldimand Co., Ont.

In New Brunswick during the seven years, 1900-1907, creamery butter production increased 237 per cent., and its value 294 per cent. In the same time cheese decreased 32.2 per cent in production and 21.58 per cent in value.