



LADY OF THE BOYNE 5TH (IMP.).

Contributed by W. D. Flatt to the Hamilton sale on August 13th. (See Gossip, page 538.)

**How to Make Firm Butter in Hot Weather.**

The texture of butter is largely influenced by the temperature at which the cream from which it is obtained is churned. The warmer the cream is at the time of churning the softer will be the resulting butter and the more difficult it will be to get it to show the necessary grain and firmness of body. In very hot weather in summer much difficulty is sometimes experienced on this score, though if proper precautions are taken there need be no trouble in getting the percentage of water reduced below the standard now decided on—viz., 16 per cent. In making butter during hot weather in summer, it is a good plan to keep the cream as cool as possible for a period of ten or twelve hours before churning is timed to commence, and with the same object in view it is a good plan to have the churning performed in the early morning, when the temperature is sensibly lower than at any other period of the day. —Farmer's Gazette.

**Experiments in Cheese Ripening.**

Ripening of cheese in cold-storage compared with ripening in the ordinary curing-room, is the title of Bulletin 121, just issued by Profs. Dean, Harrison and Harcourt, Ontario Agricultural College. In this report the growing demand of the British market for a "fatter" cheese, or one with a softer body and texture, is pointed out. It is also shown that to produce the desirable quality, factories must be equipped with better ripening-rooms. Co-operation is commended, and the advantages of central or consolidated cold-storage stations are duly considered. The main part of the investigation, however, was a comparison of methods of ripening, and although the authors wish this report to be considered only as preliminary, it should be of special interest to all cheesemen.

**CONCLUSIONS.**

1. An ice cold-storage chamber, with circulation of air, may be maintained at a temperature of about 40° without moving the ice, if the building is well insulated.
2. The high percentage of moisture, 91.6 per cent., in the cold-storage made the conditions favorable for the growth of mould; yet the mould was no worse on the cheese in the refrigerator than on the cheese in the ordinary ripening-room. In both places the mould was kept in check by the use of a solution of formalin sprayed on the cheese with a hand spray-pump.
3. The acidity of the whey increased up to the time of salting the curd, when it decreased, and then increased again.
4. The saving of loss in weight by ripening at an average temperature of 37.8° for the season was over 2 per cent. on cheese weighing about 30 pounds each. This is a very important item in a large factory, and would alone pay the cost of cold-storage for cheese in hot weather.
5. The quality of the cheese was in the order of placing in the cold-storage as regards time—that put in directly from the hoops standing first. Uniformity of quality in all the cheese placed in cold-storage was the chief point noticed.
6. An increased yield of cheese equal to at least one pound of cheese per 1,000 pounds of milk may be looked for as a result of modifying the method of manufacture and ripening at a

lower temperature than has been commonly supposed necessary.

7. It has been claimed that cheese kept in cold-storage for any length of time will spoil quickly when exposed to an ordinary temperature. Such results were not observed in the experiments conducted, nor are they likely to occur when the cheese have been ripened for the whole period at a moderately low temperature. Further experiments are being made to settle this point.

8. A cheese put directly from the hoop into a dry box and placed in cold-storage, without any turning, ripened satisfactorily. The chief defect was in the large amount of mould on the cheese. A cheese put into a box after ripening in the ordinary room for a week gave similar results. Two cheese made from the same vat of milk as the cheese put into the cheese-boxes, were placed on a shelf in the cold-storage, and the quality was similar to that put directly into a box from the hoop, and to that put into a box at the end of one week. The cheese-boxes should be well seasoned, if the cheese are not to be removed from the boxes. We would advise spraying the inside of box and soaking the scale-boards with formalin, to prevent mould.

9. Undesirable bacteria such as are found in cheese seem unable to grow at a temperature of 38° F., and consequently bad flavors in cheese, caused by bacteria, do not increase in cold-storage.

10. The long life of the lactic acid bacteria in cheese seem to have an important bearing on the question of ripening, checking the development of bacteria which produce bad or undesirable flavors.

11. The temperature at which cheese will cure best is not yet settled. There are involved in the question many points which require further investigation.

A copy of this bulletin may be had by applying to the Department of Agriculture, Toronto.

**Composition of Cream.**

The average composition of cream may be taken about as follows:

	Per cent.
Water .....	68.82
Fat .....	22.66
Casein, albumen, etc. ....	3.76
Milk sugar .....	4.23
Ash .....	.53
Total .....	100.00

**Large Creamery for British Columbia.**

"That the farmers of British Columbia are awake to the advantages of dairy husbandry in that Province," is evident by the fact that at Chilliwack they have formed a co-operative society and have built a new creamery, the largest of its kind west of the Rockies. The building has a desirable location near the town, at which a plentiful supply of pure fresh water may be had. It has capacity to handle the cream of 1,200 to 1,500 cows, and since winter dairying has become quite popular, it is expected that a large output will be maintained throughout the year. The butter will be sold upon the home market, where a ready sale can be made at remunerative prices. Mr. J. W. McGillvery, formerly a student at the Ontario Agricultural College, is the buttermaker, and Mr. T. R. Whitby, of the Bank of Chilliwack, is business manager.

**POULTRY.**

**Provide Foods Rich in Lime.**

Bran is excellent for poultry, and one point in favor of bran is, that it contains a much larger proportion of lime than any other cheap food derived from grain, and as the shells of eggs are composed of lime, it is essential that food rich in lime be provided. It may be urged that the use of oyster shells will provide lime, but it will be found that it is the lime in the food that is most serviceable, because it is in a form that can be better digested and assimilated than carbonate of lime, says the American Fancier. Clover is also rich in lime; and when a mess of cut clover and bran is given the fowls they need no oyster shells or other mineral matter as a source from which to obtain a supply of lime for the eggs. Do not forget that in summer, however, all kinds of foods should be used with judgment. If the hens have a free range, give no food at all as long as they are laying, but if they begin to fall off, let bran be the leading ingredient allowed. In winter the bran and clover are even more essential, as the fowls cannot then secure green food on the range.

**Three-months-old Chicks Wanted.**

In the report of the Dominion Experimental Farms, Mr. A. G. Gilbert, manager poultry department, says the large poultry-purchasing companies in Canada call for a three-months-old chicken, as being best suited to the wants of a certain class of customers in our home and English markets. The chicks are wanted early and in numbers. There should be no difficulty in cur farmers having such chickens by the end of July or beginning of August. A fear is expressed that a chicken of this age will not have weight, but Mr. Gilbert shows by his report that for years they have had no difficulty in that connection. Barred P. Rock, White P. Rock and White Wyandotte cockerels at three months old have averaged from 3 to 3½ pounds each.

**Keep Pens Clean.**

At no time in the year is it more important that the poultry-house be kept clean than during the sultry days of summer. A few minutes every morning, if spent in removing the droppings and in setting things in order generally, will go a long way toward making the industry profitable. It is at this time of year that disease and vermin do the greatest injury to fowl. Of the latter, certain species are to be found only in the crevices and hiding-places of roosting apartments, from whence they crawl during the night to sap the blood of our feathered friends. To check these and other pests, the walls, ceiling, partitions, nest boxes and roosts should be sprayed or whitened with lime-wash containing crude carbolic acid. It is a good practice, also, to scatter slaked lime around the windows and under the roosts each morning after cleaning up. Nowhere during this season does cleanliness mean so much as in the poultry-house.

**Supply Water to Chicks.**

During the hot days which are sure to come in the next few weeks, be sure your chicks are constantly supplied with pure fresh water. It is important that they be kept growing at this time. Lack of drink will check their progress. Filthy water may bring on disease. By all means supply plenty of water.



MISTLETOE 21ST (IMP.).

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