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Ontario Agricultural College and Experimental Farm.

A COMPARISON OF THE BACTERIAL CONTENT OF CHEESE CURED AT DIFFERENT TEMPERATURES,

By Prof. F. C. Harrison and Prof. W. T. Connell.

The following investigations were made partly at the Agricultural College, Guelph, and partly at the Eastern Dairy School, Kingston, the latter being done under the direction of the Commissioner of Agriculture and Dairying for the Dominion. The object was to determine the bacteriological conditions existing in Canadian Cheddar cheese when cured at different temperatures; to note the relationship existing between the bacterial contents and other curing agencies; and to learn, if possible, some lessons of practical value for those engaged in the production of cheese.

SOURCES OF CHETSE ANALYSED.

The cheese subjected to analysis were of two distinct groups. The first group consisted of those made and kept at the factory at Carp, Outario, during the seasons of 1899 and 1900. This lot comprised 28 cheese in all, 14 being analysed in 1899 and 14 in 1900, each cheese being examined a number of times at various intervals. One-half the cheese examined each season was kept in an insulated curing room at a temperature varying between 60 and 65 degrees Fah., the average for both summers being 62.2 degrees. Fah., the maximum recorded being 67 degrees and the minimum 36 degrees. The remain ing half was kept in an ordinary curing room in which no attempt was made to control the temperature. The average temperature of this room in 1809, while containing the cheese analyzed, was as follows: Last fifteen days of June, 68.7 degrees Fah.; July, 70.5 degrees Fah.; August, 70.8 degrees Fah.; The average temperature of this room in 1900 was: July, 72 degrees Fah.; August, 69 degrees Fah.;

The temperature of the insulated room, which was ise ited from the ordinary curing room, was regulated by a sub-earth duct and by the use of ice in racks. Full details as to methods of structure and insulation of the ordinary curing room and factory are given in the reports of the Commissioner of Agriculture and Dairying for 1899.

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