

Very little need be said with regard to the particulars given in Table C. They comprise data of acidities and temperatures observed at the various stages of the process.

The acidity of the cream previous to the addition of the starter may seem rather low; it is to be accounted for by the specially good conditions under which the milk was kept previous to separation.

In trial I. the ripened cream was so thick that it was found necessary to dilute it with about 40 per cent of its weight of water before churning could be proceeded with.

That the trials have been conducted under similar conditions (temperatures, &c.) will be evident from the above data and, therefore, it is felt that the comparison has been a fair one to both processes. Every effort was made to eliminate factors which might exert an undue influence upon the results.

TABLE D.—COMPOSITION OF THE BUTTER.

Trial.	Process.	Date of Churning.	COMPOSITION OF THE BUTTER			
			Water.	Fat.	Curd.	Salt.
1	Sweet cream.....	May 9..	11.68	85.08	1.20	2.01
	Ripened ".....	10..	12.78	84.49	1.52	1.21
2	Sweet cream.....	" 11..	11.98	84.67	1.34	2.01
	Ripened ".....	" 12..	12.33	84.02	1.31	2.34
3	Sweet cream.....	" 14..	12.24	85.09	1.19	1.48
	Ripened ".....	" 15..	12.87	84.17	1.53	1.43
Average—	Sweet cream.....		11.97	84.95	1.24	1.84
	Ripened ".....		12.66	84.23	1.45	1.66

Lastly, we present the composition of the butters. It has already been observed that the butter from the sweet-cream process is somewhat drier than that made in the usual manner; averages from the three trials show .69 per cent more water in the ripened cream butter. As the result of the presence of more water, and also to a certain degree, of more curd, the percentage of fat in the ripened cream butter is slightly lower than that in the sweet cream butter.

In so far as the keeping qualities of butter are dependent upon its composition, it might be safely adduced that the butter by the sweet cream process would be the better, since these analyses show it to be the drier and to have the less curd.

The first examination of these butters as to 'quality' was made on June 6, the samples (pound prints) then being between 3 and 4 weeks old and having been kept from the time of churning in the cool room of the farm dairy. The judging was undertaken by Messrs. J. A. Ruddick, Dairy Commissioner, and J. H. Grisdale, Agriculturist, Experimental Farms, and J. G. Bouchard, of the Dairy Division, Department of Agriculture, Ottawa. The scoring was made according to a scale of points, but the differences between the samples were so extremely small that it was subsequently decided that it would be fairer to omit the ratings thus obtained and make a general pronouncement to the effect that all the butters, both from sweet and ripened cream, were excellent and practically equal as regards quality.

The second examination was made on October 15, the butter then being 5 months old. A series of samples, one from each churning, and preserved in glass-stoppered hottles, had been kept in the cool room of the Farm Dairy, a duplicate set having been stored at a temperature of 24° F. in Ottawa Cold Storage Company's establishment. By this examination, which was made as thorough and searching as possible it was found that of the samples from the cool room at the dairy, those from the 'sweet'