These results should be compared with the results obtained from packaged ice-cream made by the same manufacturers and purchased from retail shops :—

Manufacturer.	Plate Count.	*B. coli.*
A	1,600	A in 1 c.c.
	6,800	A in 1 c.c.
B	35,000	A in 1 c.c.
C	800	A in 1 c.c.
	8,100	A in 1 c.c.
D	500	A in 0·01 c.c.

These results are overwhelmingly in favour of packaged ice-cream ; and it is as important that ice-cream should be retailed in packages as it is that pasteurized milk be retailed in bottles.

Some attempt has been made to grade ice-cream samples according to the modified reductase test, as was recently described in Great Britain(3).

The following table gives the bacteriological results and the reductase tests on samples :—

Sample No.	Total Count Per Cubic Centimetre	*B. coli.*	Reductase.	Provisional Grade.
			Hours.	
1	2,600	A in 1 c.c.	1¾	3
2	2,400	A in 1 c.c.	1¼	3
3	5,000	A in 1 c.c.	¼	3
4	1,600	A in 1 c.c.	2¼	2
5	1,800	A in 1 c.c.	2¼	2
6	1,300	A in 1 c.c.	1¾	3
7	1,800	A in 1 c.c.	4	2
8	1,800	A in 1 c.c.	4	2
9	1,400	A in 1 c.c.	4½	1
10	15,000	A in 1 c.c.	4½	1
11	4,200	A in 1 c.c.	4½	1
12	16,500	A in 1 c.c.	1½	3
13	9,200	A in 0·01 c.c.	0	4
14	5,200	A in 0·01 c.c.	1½	3
15	7,200	A in 0·01 c.c.	1½	3
16	..	A in 1 c.c.	9¼	1
17	..	A in 1 c.c.	9¼	1
18	..	A in 1 c.c.	9¼	1
19	..	A in 0·001 c.c.	8	1
20	..	A in 0·01 c.c.	8	1
21	..	A in 0·01 c.c.	8	1
22	..	A in 0·1 c.c.	8	1

It is difficult or impossible to reconcile the bacteriological findings with the reductase results, and for the purpose of control of manufacture it is considered that, allowing for the weaknesses of the bacteriological test, bacteriology gives a better guide to hygienic quality than does the reductase test.

References

(1) *Lancet*, Sept. 21, 1946, p. 434.

(2) Report of Director-General of Health, New Zealand, 1933, Appendix.

(3) *Monthly Bulletin of the Ministry of Health and the Emergency Public Health Laboratory Service*, 1947, Vol. 6 (March).