

Report on the Public Health Department's Laboratory, Dunedin, by O. J. W. Napier, B.A. (hon.). Camb., Government Analyst for Otago.

The work done in this laboratory from 1st April to 31st December, 1914, was necessarily rather limited, as this was the first year that work in connection with the Sale of Food and Drugs Act of 1908 was carried on in Dunedin. The work for the Public Health Department, as will be seen below, was mostly confined to the examination of milk samples, it being considered that this was by far the most important subject to be investigated, as, of course, milk lends itself far more easily to adulteration than any other food.

Unfortunately, owing to the war, none of the laboratory equipment ordered from England in May has yet arrived, and this lack of sufficient apparatus and also somewhat cramped quarters made it impossible to attempt any more work. However, ample space for work will be available in April, 1915, on the completion of the new University buildings, when the main Public Health Laboratory will be more than three times the size it is at present. In the basement of the new buildings there will also, in addition, be a bench for water-analysis, in a room free from all possible contamination with ammonia vapours.

During the year 1915 we hope to widen the scope of our work and to examine a much wider range of foodstuffs, &c., including infants' and diabetic foods, cordials, ice-creams, and air of schools and places of amusement, and also drugs.

On the arrival of the apparatus from England it is intended also to carry out the cryoscopic test for the detection and determination of adulteration of milk with water. The importance of this test is fully dealt with by the Dominion Analyst in the appendix to his forty-seventh annual report, for 1914.

The total number of samples received and reported on from 1st April to 31st December, 1914, was 183. Of these, 123 were for the Public Health Department, and were nearly all taken under the Sale of Food and Drugs Act, 1908; 19 were for other Government Departments; and 41 for firms and private individuals.

The analyses are classified as follows :—

1. Milks	..	..	..	..	..	..	..	112
2. Butters	..	..	..	..	..	..	..	2
3. Margarines (Customs Department)	..	..	..	..	..	..	..	5
4. Waters	..	..	..	..	..	..	..	18
5. Examinations for the Police Department	..	..	..	..	..	..	..	2
6. Miscellaneous	..	..	..	..	..	..	..	44
Total	..	..	..	..	..	..	..	183

The nature of the analyses done for the various Government Departments is shown as follows :—

Public Health Department.—Samples taken by the Inspectors of this Department under the Sale of Food and Drugs Act, 1908, were almost entirely confined to milks, a few samples of butters, vinegars, and chocolate being taken as well.

Of the 112 samples of milk collected, 12 were below standard in solids other than milk-fat, and 2 below standard in milk-fat. No preservative was found in any of the samples. The average analysis of these milks was :—

	Per Cent.
Fat	4.09
Solids not fat	8.65
Total solids	12.74

The following are three of the most varied results obtained, and are of interest :—

	Fat, per Cent.	Solids not Fat, per Cent.
Highest in fat	8.1	8.62
Lowest in fat and solids not fat	2.8	6.95
Highest in solids not fat	5.2	9.55

The butters were genuine butter-fat and contained borax within the prescribed limits, the water being well below the maximum allowed (16 per cent.).

The vinegars, comprising both locally manufactured vinegars and vinegars made by English firms, all complied with the regulations, and contained no adulterants.

Customs Department.—The only samples analysed for this Department were five samples of margarine, four of which complied with the Margarine Act of 1908, but one of which did not comply, in that it was strongly coloured with anatto and contained no sesame-oil.