

Since it has been demonstrated that a cheap limonite-salt lick largely obviates many of the troubles of raising stock on bush-sick lands, considerable areas in the Rotorua-Taupo district will probably be occupied. Last season two geologists were engaged in the reconnaissance mapping of the soils in different parts of this region for the Native and Lands Departments. Considerable areas of Native lands have still to be examined, but it is hoped next year that some soil-mapping will be undertaken in the Waikato lowlands.

Where the results should have considerable economic significance owing to the amount of fertilizer used, and the possible economies and efficiency of utilization, the important results arising from the soil survey justify the formation of a soil branch of the Geological Survey, as the geological origin and changes in the soil are proving of fundamental importance.

The rise in the value of gold has greatly stimulated work in the goldfields, and has, indeed, altered their whole economic position. Since the beginning of the year an officer of the Geological Survey has been detailed to examine the old alluvial goldfields in Nelson and Otago, and to report on the possibility of large numbers of unemployed being able to win enough gold to reduce substantially the present charge of their maintenance by the State. Next season he will visit the West Coast and Otago. In the latter province he will examine more closely the extensive deposits of quartz-drifts that have in the past yielded such large amounts of gold.

Dr. H. T. Ferrar's untimely death must be recorded with great regret. He had specialized in the study of soils for many years, and at this time, when the importance of soil-classification is becoming widely recognized, the death of one of its leading exponents in New Zealand is particularly unfortunate.

METEOROLOGICAL OFFICE.

The Meteorological Branch has continued throughout the year to exercise its two main functions of forecasting the weather and of collecting and making available information regarding the climate of the Dominion in its various aspects. It has not been possible to provide for any extension of the work of the Branch, some of its activities, indeed, having had to be reduced.

The year was the first spent in the new quarters at Kelburn, and considerable advantage has been derived from the location of the Office near its Observatory and from the conveniences of a building designed for the specific purpose for which it is used. In particular, it has been of assistance to the forecaster to be able to watch the weather-changes and to record the direction and speed of cloud-motion.

In response to urgent representations from those concerned with maritime pursuits, the evening broadcast of weather reports for shipping from the Wellington Radio Station was restored. A special report was again broadcasted, in co-operation with the Radio Broadcasting Co. of New Zealand, from 2YA Wellington at 3 p.m. during the greater part of the year. This issue gives a general description of the existing meteorological situation in simple language, and indicates the developments to be expected therefrom for as long a period in advance as the situation warrants. It is intended especially for the agricultural community. The city-dweller has little comprehension of the value attached to the weather forecast by those in the country, or the extent to which farmers and others plan the next day's operations in accordance therewith. The increasing evidence of this is, however, very gratifying. It is not possible at present to make an earlier issue of the "farmers' forecast," since its accuracy depends largely on information from Australia, which does not arrive until the afternoon.

The Director while in Europe recently made a brief study of the methods of weather-forecasting developed in recent years by the Norwegians, which are generally acknowledged to be an advance on pre-existing methods. Since his return he has applied the method to the region covering Australia and New Zealand and the islands to the northward, using for the purpose reports received through the post, in addition to those telegraphed daily. Conditions in Australia are found to be very favourable for the successful application of the method. But, since it depends on the existence of a close network of reporting stations, the situation is much less satisfactory so far as the New Zealand area is concerned. Nevertheless, there is no doubt that were detailed reports available by cable or wireless from Australia the adoption of the method would lead to considerable advances. In this connection it is to be regretted that it has been found necessary, owing to the economic depression, to reduce the number of reporting stations.

A continually increasing number of people take advantage of the facilities for securing by telegraph or telephone special forecasts of the weather as it is likely to affect their activities. Much assistance can be given in such cases. Usually they involve some specific point which cannot receive full attention in a general forecast, which is necessarily limited to a few words.

Climate is an important factor in many enterprises, and therefore one which must be taken account of in the scientific planning which the competition of modern civilization requires in any business. This is reflected in increased demands both for data from existing climatological stations and for the establishment of new ones, the Meteorological Office staff being taxed to its utmost capacity in this respect. The country owes a debt of gratitude to the many voluntary observers who, on all days and in all weathers, make the observations on which our knowledge of the climate is based. As soon as conditions permit, the observing stations should receive regular visits, so that the equipment may be inspected and observers given instruction. The classification and summarization of the climatic data collected hitherto has been proceeded with. The results have been incorporated in a series of monographs dealing with specific aspects or in more general accounts of the climate. These publications will undoubtedly prove of much value, especially to agriculturists, forestry experts, and engineers. Details will be found in the Director's report.