

from the wet Westland and the arid central district of Otago. Included also are the results yielded by a remarkably fertile soil from Maruia Plains, near Murchison, in the south Nelson district. Dr. Henderson, of the Geological Survey, who collected this sample of soil, informs me that it is derived from a mica-schist rock. A composite made up of samples of soil from Roxburgh (two), Beaumont, Naseby, Sutton, Manuherikia, Maniototo, St. Bathans, and Frankton, all in Central Otago, is given under No. P/278. The analysis of this composite sample bears out the opinion expressed by Professor Park in Bulletin No. 2 of the Geological Survey, that "the soil possesses a latent richness that the casual observer would hardly suspect. By the application of water the wilderness is transformed into fruitful gardens and prosperous farms. The conservation and distribution of water for irrigation purposes will in time convert the plains and valleys of Central Otago into one of the most prosperous agricultural districts in New Zealand."

Some analyses of unweathered mica-schist rocks are given in Table 2, from the Geological Survey Bulletin No. 6, and accompanying them are two samples, "C" and "D," of American mica-schist rocks from Clarke's "Data of Geo-Chemistry." Analyses of other schist rocks from Central Otago unfortunately lack the requisite information and are therefore not given.

These mica-schist soils often show a deficiency in nitrogen, and are all deficient in organic matter. In the wet districts the available potash is often deficient, although present in very great quantity in an unavailable state. The treatment of such soils with quick or caustic lime has been suggested by the writer as a remedy, in the bulletin "The Wire-basket Method of Testing Soils" (1907). The available phosphoric acid is, as has been stated, present in great excess, but the total is sometimes present in quite moderate amounts. The happy position of Otago in the matter of available phosphate in the soil, compared with other parts of New Zealand, is summarized in the New Zealand Official Year-book for 1913, page 549, and in this Department's Bulletin No. 48, "Phosphates," by the writer. Only 3 per cent. of the soils from Otago analysed were found to be deficient in available phosphate, whereas the percentage deficient in Wellington was 33 and in Auckland 65.

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*New Rabbit District.*—The Patea-Waitotara Rabbit District has been constituted for the purposes of Part II of the Rabbit Nuisance Act, 1908.

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*Rabbit Control and Trapping.*—Regulations under the Rabbit Nuisance Amendment Act, 1920, relating to the destruction of rabbits in the Mangapiko and Kawa West Rabbit Districts, have been gazetted. These provide that every owner of land who is served with a notice to destroy rabbits in terms of the Rabbit Nuisance Act, 1908, must do so either by laying poison or by the fumigation or filling-in of burrows. Where it is desired to substitute other means of destroying the pest, application for permission to do so must first be made to the Rabbit Board, whose decision is final. Further, within seven days of service of the notice, all trapping on the land must cease for a period of six months. The penalty for a breach of the regulations is a fine not exceeding £10. The full text of similar regulations governing the Hurunui Rabbit District was published in the *Journal* for November last (page 315).