

SERPENTINE SUPERPHOSPHATE

Experiments with serpentine superphosphate have shown that, applied at the same rate as superphosphate on grass-land, it has given equally good results in a number of districts, and the same effect is seen on

most of the common farm crops throughout the Dominion. The saving of phosphate where the new mixture is giving such satisfactory results under the conditions described is of considerable practical importance.



An outcrop of serpentine rock on D'Urville Island.

Recommendations for Use Of the New Mixture

AT the beginning of 1940 two factors made essential an immediate and comprehensive experimental programme with serpentine superphosphate—(1) the promising results of preliminary trials with the new manure, and (2) the possibility of a shortage of phosphatic fertilisers, later to become an unpleasant reality. Data from a large number of trials is now sufficiently complete to make possible an estimate of the value of serpentine superphosphate and to give recommendations regarding its use.

Early Work

In the "Journal" for April, 1940, an account is given of the history of the

material and the workers associated with its early development. Interest in the possibilities of serpentine was aroused as a result of Russian investigations into the mixing of dunite (a rock usually containing the mineral serpentine) with superphosphate. Various Divisions of the Departments of Agriculture and of Scientific and Industrial Research in New Zealand then co-operated with superphosphate manufacturers to produce small quantities of a superphosphate serpentine mixture, and a preliminary experi-

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mental programme was begun. The indications from this work were sufficiently promising to warrant the comprehensive investigation that was subsequently carried out.

While much work has been done on the manufacturing details and on the chemical behaviour of the mixture, it is intended to restrict the present article to a description of the practical value of serpentine superphosphate to farmers, and to summarise the results of trials carried out by the Fields Division.