

Sample.	Particulars of Locality or Sender of Samples.	Carbonate of Lime (CaCO <sub>3</sub> ).	Remarks.
		Per Cent.	
L/362	K. S. McKenzie, Te Kuiti .. .. .	81·0	
L/363	K. S. McKenzie, Te Kuiti .. .. .	95·0	
L/367	J. W. Carter, Collingwood .. .. .	72·0	
L/381	S. H. Green, Dairy Flat, Auckland .. .. .	51·0	Soft stone.
L/382	H. Feary, Takaka, Nelson .. .. .	95·5	
L/399	J. L. Shanks, Kaukapakapa .. .. .	64·0	
L/401	Kaipara Farmers' Lime Company .. .. .	73·0	
L/402	Kaipara Farmers' Lime Company .. .. .	70·0	
L/403	Kaipara Farmers' Lime Company .. .. .	76·0	
L/404	Kaipara Farmers' Lime Company .. .. .	82·0	
L/482	Hokianga Chamber of Commerce .. .. .	57·0	
L/522	W. J. Newport, Takaka .. .. .	97·0	
L/523	W. J. Newport, Takaka .. .. .	91·0	
L/524	W. J. Newport, Takaka .. .. .	95·0	
L/527	A. Thomson, Chancet, Ward .. .. .	73·0	
L/528	A. Thomson, Chancet, Ward .. .. .	85·0	
L/538	J. P. Turnbull, Napier .. .. .	92·0	Soft stone.
L/581	J. T. Boyde, Paparoa, Kaipara .. .. .	92·5	
L/582	J. T. Boyde, Paparoa, Kaipara .. .. .	86·5	
L/583	J. T. Boyde, Paparoa, Kaipara .. .. .	87·5	
L/624	C. S. Dalglish, Matari Valley, Murchison .. .. .	93·0	Soft stone.
L/631	T. Anderson, Carrington .. .. .	86·5	
L/632	D. J. Macauley, Carrington .. .. .	91·0	
L/676	Hokianga Chamber of Commerce .. .. .	66·0	
L/683	Instructor Patterson, Warkworth .. .. .	72·0	
L/684	Instructor Patterson, Purewa .. .. .	84·0	
L/685	Instructor Patterson, Purewa .. .. .	75·0	
L/686	Instructor Patterson, Purewa .. .. .	71·0	
L/708	Hawkes and Robertson, Kaukapakapa .. .. .	60·0	
L/738	J. E. Simes, Matakau .. .. .	93·0	
L/761	D. McGregor, Gladstone .. .. .	90·0	
L/765	Hokianga Dairy Company .. .. .	62·0	
L/779	H. J. Walton, Martinborough .. .. .	65·0	
L/793	A. Hobbs, Balfour .. .. .	83·0	
L/837	Sir W. Buchanan, Gladstone .. .. .	87·5	
L/838	Sir W. Buchanan, Gladstone .. .. .	84·0	
L/839	Sir W. Buchanan, Gladstone .. .. .	81·0	
L/840	Sir W. Buchanan, Gladstone .. .. .	90·0	
L/841	Sir W. Buchanan, Gladstone .. .. .	92·5	
L/842	Sir W. Buchanan, Gladstone .. .. .	87·5	
L/877	S. B. Newcombe, Tauhoa .. .. .	91·0	
L/878	G. Thompson, Port Albert .. .. .	80·5	Soft stone.
L/879	G. Thompson, Port Albert .. .. .	72·0	
L/927	H. F. Stewart, Kaukapakapa .. .. .	80·0	
L/953	I. Patterson, Reefton .. .. .	80·0	
L/963	C. R. D. Kemp, Gladstone .. .. .	91·5	
L/964	C. R. D. Kemp, Gladstone .. .. .	93·5	

#### *Development of Limestone Resources.*

Advice on the subject of grinding limestone and "burning" lime has been given in response to inquiries from time to time. In order to place this work on a more satisfactory footing it was decided to form a committee of Government experts to assist and advise those interested in working limestone deposits. The committee consists of Mr. F. W. Furkert, Assistant Chief Engineer, Public Works Department; Mr. P. G. Morgan, Director of the Geological Survey; and the Chemist to the Department of Agriculture.

The utilization of sea-shells is receiving attention in North Auckland, particularly in the Kataia district, where there is a proposal to form a co-operative company in this connection.

Some field experiments designed to test the calcareous mudstone termed "papa" have been published (see *Journal*, April, 1916, p. 303). It is difficult to see how it could prove remunerative to apply a substance like papa, which contains only a very small percentage of carbonate of lime, as the material which is effectively useful. Some varieties of papa may be baked in a wood-fire kiln to a consistency and hardness of the best drainpipes and have the following composition after calcining, the sample being from Tokimira: Silica (SiO<sub>2</sub>), 64·30 per cent.; alumina (Al<sub>2</sub>O<sub>3</sub>), 17·70 per cent.; iron oxide (Fe<sub>2</sub>O<sub>3</sub>), 8 per cent.; calcium oxide (CaO), 2·70 per cent.; magnesium oxide (MgO), 2·28 per cent.; alkalis (soda and potash), 4·37 per cent.; loss on ignition, 0·65 per cent.: total, 100 per cent.

#### *Lime Legislation.*

Many farmers are under the impression that legislation regulating the composition of lime supplied would be an admirable thing in New Zealand. It is extremely doubtful if such legislation would improve matters, but there is little doubt that it would increase the cost of the lime to the consumer. The Department has taken some steps to obtain information regarding the practice of other countries, and it is significant to note that the great English-speaking agricultural countries have no legislation limiting the sale of lime to that of any particular quality or specifying standards of purity. It is not thought advisable at present to put any restrictions on the output of lime by laying down the standards, as the quality of the lime sold is likely to vary so much in every district with the quality of the stone and the facilities for reducing or calcining it. The most that can be recommended is that it may be permissible for vendors to sell lime under a guarantee of purity. The purchaser would then have civil right of recovery for any breach of warranty.