THE COST OF CULTIVATION

The cost of growing an acre of sugar-beets has averaged in America, Canada, Australia, and New Zealand from £6 12s. to about £8, but in all cases the higher the cost allowed for cultivation the higher the grade of beets and sugar, and the higher the returns of profit have been to the grower. In proof of this we give the record test of America (1883) and the record test in New Zealand (1907), detail costs, as it has been proved by public test at the Government Farm, Ruakura, Waikato, that 21-ton crops of beet can be grown in Waikato second-class soils by proper cultivation, yielding roots weighing 5 lb., that by analysis contain 16 per cent. of sugar Such roots should be worth 16s. per ton at a factory at present sugar-values, and the farmer should be able by a policy of co-operation and reciprocity with capital and labour to produce such a crop at £9 per acre, and independent of the sugar-beet-root tops left on the field available for food for his cows. His land being in a high-class state of cultivation ready for his winter crop of wheat or oats, beet-roots yielding 14 to 16 per cent. of sugar should enable the factory to turn out its sugar at £20 per ton on the spot, ready for its local market, thus saving freights and railway carriage on the imported sugars, to the distributing centre in Waikato. Where the local sugar-factory would be established—a 350-ton-per-diem factory—would require 1,500 acres of roots yielding 20 tons per acre to supply it with the raw material for a ninety days' sugar campaign, manufacturing sugar; an average of 15 tons sugar-beets per acre, containing 12 to 16 per cent. sugar, yields 2,700 lb. to 4,000 lb. sugar per acre. To insure a regular supply of raw material a four-course system of farming would have to be provided for, and therefore 6,000 to 8,000 acres of suitable sugar-lands, available to river or rail, should be secured on lease with the option of purchase, for the purpose of re-leasing the land upon similar terms and conditions to dairy-farmers with families, who would undertake to cultivate and produce the sugar-beets for a factory As the experiments made during the past have proved that second-class Waikato land is very suitable to produce high-class sugar-beets, 6,000 to 10,000 acres of such land should be available for lease at a moderate rent, with option-of-purchase or improvement clauses to secure the value of improvements to the cultivator

SUGAR-BEET AND THE MAORI

The sugar-beet-root culture, in conjunction with the New-Zealand-flax cultivation, as an industry will prove very suitable to our Maori races, whose instincts are admittedly agricultural, and who are owners of large areas of very suitable lands for the growth of the sugar-beets and *tihore* flax, and also tobacco. The Maori people, if organized by their own chiefs and committees, under the guidance of experienced managers, would prove themselves to be competent and valuable assistants in the development of these great national industries, to the mutual benefit of all concerned. As a matter of policy there can be no doubt that these industries, if established in the Waikato, would be productive of great good in encouraging our Maori people to settle down to work and to take their proper place and share in the development of the Waikato district. To them we confidently look for the families of workers in the fields, weeding and cultivating the crops, which to them would be recreation, and work for which they are by nature suited. Therefore, as the Chief Justice of New Zealand has given his opinion publicly that agricultural pursuits must be the saving clause of our Native policy to save the Maori race, the Government should look favourably upon our efforts to develop these industries. Furthermore, apart from the belief in the financial possibilities to be secured to the Dominion by establishing firmly the sugar-beet-root industry, the impetus it will give to all kinds of *bona fide* settlement in the country districts should be a sufficient warrant for capital to support the movement and for the public goodwill to be accorded to it, providing, as it would do, for employment in summer and in winter for an agricultural and a manufacturing population of a first-class city No similar opportunity is offered to any State or people as is now at the command of the Dominion of New Zealand in its sugar-beet-root and native-flax areas in Waikato. In support of our contention we refer inquirers to official reports from the New Zealand Department of Agriculture's Annual Report for 1907, and from Bulletin No. 123 on the beet-sugar industry of Wisconsin, U S.A., April, 1905, together with extracts from my address in 1887 The question of labour is ably answered in the message from the President of the United States of America on the progress of the sugar-beet industry in the United States to the Senate and House of Representatives from White House, April 1, 1904, page 103, which we quote from.

DEPARTMENT OF AGRICULTURE. CHEMICAL DIVISION. Page 101, on the Sugar Industry of the United States. By Harvey W Wiley, Washington Government Printing Office, 1885. Mr Mackay, Washington West.

"Record Beets." Yield, 32½ tons per acre.

	£	s.	d.
Cost of working 2 acres—			
Ploughing and subsoiling 2 acres	4	3	4
Harrowing and clod machine	1	5	0
Rolling	0	16	8
Planting	0	8	4
Seed	0	16	8
Cultivating-machine work	3	8	8½
Hand-weeding	4	3	4
Harvesting	4	9	7
Housing, 50 cents. (2s.) per ton	6	15	3
Rent of land	4	3	4
Average cost of beets per ton, 9s. 6d.	£30	9	10½
Per acre	£15	4	11¼