

any company takes a big risk like this they naturally wish to be sure of your Government's good feeling towards them. The average cost per acre of beet-root is about £6 10s. in the United States, and I put it down at £8 per acre for New Zealand when grown on a large scale.

1. *Mr Buchanan.*] Would you be surprised at Mr Spreckels, who was in his time a most experienced sugar manufacturer and grower, stating that New Zealand was too close to the sea—that its climate did not provide a sufficiently ripening sun to develop sugar in the beet?—We have proved in New Zealand that we can grow beet-root for sugar purposes of the right quality and quantity

2. Would you be surprised at the possibility of our chemists here, who are not trained to the special analysis required for sugar, being mistaken in the percentage of sugar grown in New Zealand?—I should say that chemist should become a blacksmith.

3 Do you think that all chemists should be trained in different branches of analysis?—I should think, to find out the sugar-capacity of a beet-root is a comparatively simple matter, and I should think that a Government Chemist, as I understand Mr Aston is, should be able to provide an absolutely safe analysis.

4. What do you consider the special difficulty that a farmer would have as between beet-growing and growing mangolds, which also require thinning and careful cultivation during the whole growth? You stated that you would not rely upon the farmers, and that they would have to be educated. Is there anything to prevent an individual being shown in a very few lessons, having the right land first and the right seed, how to thin and cultivate during the growth of the beet: is there anything to prevent him being quite competent to grow the beet with a few lessons?—My reply is this: There are as competent farmers in New Zealand as anywhere else. In America you will find that each manufacturing place keeps a special expert, who goes round teaching the farmers, and this would have to be done in exactly the same way here. It has been proved that in America a farmer with no experience in beet-root crops can produce, say, 14 tons per acre; the next year, with more experience, he produces 16 and 17 tons per acre. It has been absolutely proved by statistics that the man who has been taught by experts improves rapidly. The number of lessons depends upon the person himself—some would learn quickly and some would take longer

5. Have you been farming in America, and have you had any experience on the land, or is your information derived from the communications you received from Mr Dyer as to the industry in America?—I have been on the field and through manufacturing places in various countries, but I have not myself manufactured or grown. However, I studied the matter so far that I can speak about it.

6. Have you been engaged in farming at all?—Never

7 Will you explain why there is so much more risk in growing beets than other crops, detailing the difficulties of the beet-plant?—Mr Young stated there were no difficulties with regard to diseases. When I handed in my statement I gave you to understand that this is the result of the American investigations, that sugar-beet is a more certain crop, and that beets are not liable to damage through rain like potatoes.

8. I think the Committee understand your point of view to be that the company that takes this up must become the owners of, say, 20,000 acres of land, and work it as a company owning the land?—They need not become the owners. They might say to your Government, 'Will you lease to us 20,000 acres for the next twenty-one years?.' Of course, the value of this land would increase.

9 Can you suggest any plan by which the company could commence operations in the Waikato district under the conditions which you have laid down to us as necessary to success?—That involves a great deal of consideration, which I could not give to it just now. As to comparison with other crops, say, for instance, you grow this year potatoes, let us assume you get 5 tons of potatoes per acre next year you grow beet-root, and then grow potatoes again. By then the land has been improved so much that you do not get 5 tons but 10 tons of potatoes.

10. Have you any statistics to show?—I have made a copy of one rather interesting table, which I will hand in

Crop.	Before. Beet-culture.	After Beet-culture.	Increase in Pounds.	Per Cent. Increase.
	Lb.	Lb.		
Wheat	1,848	2,292	444	24·0
Rye	1,456	1,672	216	14·8
Barley	1,672	2,094	422	25·2
Oats	1,355	1,918	563	41·5
Peas	985	1,834	849	86·0
Potatoes	6,716	13,500	6,874	102·3

11 Questioning this experienced person, who was born in the beet-growing district in France, where they have had many years of experience, I understood that the beet was acknowledged to be most exhaustive in draining the soil of its fertility—so much so that it was necessary to employ the very best land and manure in order to get a good crop. Your remarks would go to show that the cultivation of beet would improve the land. Could you explain?—Owing to the special way they treat it—they plough it so much deeper. In America they use land for beet-root growing at the rate of £2 or £3 an acre, that cannot be good land. You are feeding the land all the time; the tops of the beet-root are ploughed into it again.