per lb.; and though his New Zealand-grown beet shows over 8 per cent, he puts the cost of production down at 2d. instead of 1½d. per lb., and estimates 60 per cent. profit E. B. Grant, an American, in his work on the subject, estimates the profit on 7 per cent. beet sugar sold at £39 13s. 4d. per ton, or 4½d. per lb., at 52 per cent. net profit. Professor Crookes, in his work, states that 8 per cent. beet sugar sold at £24 per ton, equals about 50 per cent. profit. Baruchson states that  $6\frac{1}{2}$  per cent. beet-root, sold at £24 per ton, will yield  $24\frac{3}{4}$  per cent. net profit; if the percentage be 7 per cent., the profit will be 32 per cent.; if 8 per cent., profit 48 per cent. The yield in Germany on an average of 2,500,000 tons of beet-root, is 8.4 per cent. sugar extracted.

Mr. George S. Graham saw in Belgium the books of a sugar company, which showed that for seven years they had averaged 15,372 tons beet used per annum, the percentage of sugar 9.36, and the profit actually paid in dividends 27.5-7 per cent. Though this shows less than all the foregoing estimates, yet included in that there may be trade losses, which are not taken into account in the former estimates.

As to the difference in the cost of labour in New Zealand and on the Continent, I do not think much of that, as our land is cheaper, and hence there is less interest or rent to pay, less taxation, and with approved appliances for cultivation it ought to be as cheap to produce beet here as in Europe, and here 20s. per ton might be paid for the roots instead of 16s., which seems to be the average price paid elsewhere.

Before going further in the matter, I intend waiting to see the result of the Waikato experiments, when I will return to the charge.

Last mail brought the news that Europe had in the past season produced the largest amount of beet sugar on record, viz., 1,600,000 tons, and that the cane sugar, with a Customs duty of ½d. per lb. less than the excise duty on the beet, has been driven out of the market.

I may state that Mr. J. C. Firth offered to give me a written guarantee to grow 1000 acres of beet per annum, and sell the raw sugar to a refinery, if I could get one started in Auckland capable of refining both cane- and beet-sugar. I am afraid that this will not be accomplished, as capitalists will watch with interest the result of the speculation now being tried in Fiji with cane-sugar by the Sydney Sugar Company, who are erecting a refinery there costing £100,000, and intend spending further sums on cane plantations, and the Victoria Sugar Company are about to follow suit, with even more capital. If these companies succeed, it will evidently be of little use starting a refinery in Auckland, but there is no reason why we should not have a beet-sugar company for Auckland refining its own sugar, and if the Government would offer the same bonus that they did a few years ago, viz., £10,000 for the first 100 tons of beet-sugar produced in New Zealand, and sold in the open market, I believe thoroughly that a company could be established so soon as the results of the Waikato experiments are known. That there is room for such a company you may imagine, with the imports of sugar at £525,000 per annum, and yearly increasing.

- I have much pleasure in proposing a cordial vote of thanks to Dr. Curl, for his valuable paper. Seconded by Mr. J. C. Firth, and carried unanimously.
- 2. "On some Indications of Change in the Level of the Coast Line in the North part of the Northern Island," by S. Percy Smith. (Transactions, p. 398.)
  - 8. "On Heredity," by E. A. Mackechnie.

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