

1877.

NEW ZEALAND.

BEET-ROOT SUGAR COMMITTEE

(REPORT OF THE).

Report brought up and ordered to be printed, 29th August, 1877.

ORDERS OF REFERENCE.

Extracts from the Journals of the House of Representatives.

WEDNESDAY, THE 1ST DAY OF AUGUST, 1877.

Ordered, That the question of the encouragement of the manufacture of Beet Sugar be referred to a Select Committee.—(*Mr. Swanson.*)

THURSDAY, THE 9TH DAY OF AUGUST, 1877.

Ordered, That the Select Committee, to whom was referred the question of the best means of introducing and establishing the manufacture of Beet-root Sugar in the colony, do consist of Hon. Mr. McLean, Mr. Murray, Mr. Burns, Mr. J. C. Brown, Mr. Sharp, Mr. Macfarlane, Mr. Hamlin, and the Mover; three to be a quorum, with power to call for persons and papers, and to report within three weeks.—(*Mr. Swanson.*)

REPORT.

THE Select Committee, to whom was referred the question of the best means of introducing and establishing the manufacture of Beet-root Sugar, have the honor to report as follows:—

That, in order to afford sufficient encouragement to the capitalist and manufacturer to enter upon the production of beet-root sugar in New Zealand, a guarantee should be given by the Government of freedom from any excise duty to be levied thereon for a period of ten years from the present time, and that the Customs duty should remain as at present on all imported sugar during the same period.

JOHN SHARP,
Chairman.

29th August, 1877.

MINUTES OF PROCEEDINGS.

WEDNESDAY, 15TH AUGUST, 1877.

The Committee met pursuant to notice.

PRESENT:

Mr. J. C. Brown,
Mr. Hamlin,

Mr. Macfarlane,
Mr. Sharp.

The Committee adjourned until Monday, 20th August, at 10.30 o'clock a.m.

MONDAY, 20TH AUGUST, 1877.

The Committee met pursuant to adjournment.

PRESENT:

Mr. Macfarlane,
Mr. Sharp,

Mr. Swanson.

Resolved, on the motion of Mr. Swanson, That Mr. Sharp be appointed Chairman.

It was agreed that a series of questions be drafted by the Chairman, to be forwarded to Mr. Cairns, Auckland, either by letter or telegram.

It was agreed that J. P. Joyce, Esq., M.H.R., be requested to attend next meeting to give evidence.

The Committee then adjourned until Thursday, 23rd August, at 10 o'clock a.m.

THURSDAY, 23RD AUGUST, 1877.

The Committee met, pursuant to adjournment, at 10 o'clock.

PRESENT:

Mr. Sharp in the chair.

Mr. J. C. Brown,
Mr. Macfarlane,

Mr. Murray,
Mr. Swanson.

The orders of reference were read.

The minutes of the previous meetings were read and confirmed.

Resolved, on the motion of the Chairman, That the following telegram be sent to Mr. Cairns, Mangere, Onehunga:—

1. What is the inducement you require to go into beet-sugar industry? Is it a bonus or protection? If the first, how much? If the second, how long?
2. When would you be prepared to commence operations and manufacture sugar?
3. What quantity will you guarantee to produce first year, and what the annual increase of production?
4. State estimated cost of plant capable of producing 1,000 tons of sugar per annum?
5. Would you propose to grow beet yourself or purchase from farmers?
6. What area of land would be required for production of beet in sufficient quantity for manufacture of 100 tons sugar?
7. What would be cost of such sugar of good quality?
8. What capital you propose to lay out?

The Committee then adjourned until Monday, 27th August, at 10.30 o'clock.

MONDAY, 27TH AUGUST, 1877.

The Committee met, pursuant to adjournment, at 10.30 o'clock.

PRESENT:

Mr. Sharp in the chair.

Mr. J. C. Brown,
Mr. Macfarlane,

Mr. Murray,
Mr. Swanson.

The minutes of the previous meeting were read and confirmed.

The Chairman read a telegram he had received from Mr. J. C. Cairns. (Appendix A.)

J. P. Joyce, Esq., M.H.R., attended and gave evidence.

Memorandum, furnished by Dr. Hector, showing analysis of samples of beet-roots for sugar was laid before the Committee. (Appendix B.)

The Committee then adjourned until Wednesday, 29th August, at 10 o'clock.

WEDNESDAY, 29TH AUGUST, 1877.

The Committee met, pursuant to adjournment, at 10 o'clock.

PRESENT:

Mr. Sharp in the chair.

Mr. Murray,

Mr. Swanson.

The minutes of the previous meeting were read and confirmed.

The Chairman laid before the Committee a draft report for adoption.

Resolved, on the motion of Mr. Swanson, That the following report be adopted and brought up to the House with the proceedings and minutes of evidence:—

That, in order to afford sufficient encouragement to the capitalist and manufacturer to enter upon the production of Beet-root Sugar in New Zealand, a guarantee should be given by the Government of freedom from any excise duty to be levied thereon for a period of ten years from the present time, and that the Customs duty should remain as at present on all imported sugars during the same period.

Read and confirmed.

MINUTES OF EVIDENCE.

MONDAY, 27TH AUGUST, 1877.

Mr. J. P. JOYCE, M.H.R., being in attendance, was examined.

1. *The Chairman.*] Are you aware if the manufacture of sugar from beet-roots is carried on in France to any extent?—Yes, to my own knowledge it is; and the cultivation of beet for making sugar is an important industry in France.

2. Is the sugar considered to be equal in quality to that made from the sugar-cane?—No, it is not supposed to be of quite such good quality.

3. Can you state the price?—About 6 sous, 3d. per pound, unrefined; but in that state it is not fit for consumption, owing to its offensive taste.

4. Do you know the yield per acre?—I cannot state the yield per acre; but the farmers' object in growing beets is not so much to grow the roots of large size, as that they shall contain the greatest amount of saccharine matter.

5. What is the yield per ton?—About 6 or 7 per centum.

6. Is the residue of any use?—Yes, the pulp makes excellent cattle-feed. It is often mixed with cut straw or chaff. Pigs are also fed upon it. The molasses can be used for the distillation of spirits.

7. It has been stated that the yield per acre does not amount to 15 tons; can you state if this is so?—No, I do not recollect, but it is something about that—rather under I think.

8. What time is required for the growth of the beet crop?—It is generally considered a fallow crop. The season—it is sown in the spring, and is biennial. I should add that it requires to be very carefully cultivated. In the Southern Island it thrives best in country of a limestone formation, but would answer well anywhere with proper treatment.

9. *Mr. Murray.*] Is the refuse of much use for purposes of distillation?—Yes.

10. Would you recommend the Legislature to permit distillation from the waste products?—No; but if found profitable they could be sold to distillers.

11. You have personal knowledge of factories in France?—Yes.

12. *Mr. J. C. Brown.*] What amount of labour is required in the manufacture of the sugar?—A considerable amount of labour is required. It is, however, cheap labour after sowing—it is principally that of women and children.

APPENDICES.

APPENDIX A.

Telegram from the Chairman, Beet Sugar Committee, to Mr. J. C. Cairns, Mangere, Onehunga, together with Mr. Cairns's reply:—

1. What is the inducement you require to go into beet sugar industry? Is it a bonus or protection? If the first, how much? If the second, how long?—No bonus, only freedom from excise for ten years, and guarantee for some equivalent should import duty be repealed or reduced.

2. When would you be prepared to commence operations and manufacture sugar?—May, 1879 or 1880.

3. What quantity will you guarantee to produce first year, and what the annual increase of production?—I propose 600 tons, and to continue about that.

4. State estimated cost of plant capable of producing 1,000 tons per annum?—£24,000.

5. Would you propose to grow beet yourself or purchase from farmers?—To purchase from farmers, as requiring less capital.

6. What area of land would be required for production of beet in sufficient quantity for manufacture of 100 tons sugar?—About 80 acres good land.

7. What would be the cost of such sugar of good quality?—Manufacturer's actual outlay at first of about £31 per ton for fair average refined.

8. What capital you propose to lay out?—£15,000.

APPENDIX B.

MEMORANDUM showing Analysis of Beet-roots for Sugar, samples grown in New Zealand.

1873.	Botanic Gardens, Wellington	...	...	3½ lbs. average weight	...	2.1 sugar per cent.
	"	...	...	1½	...	6.7
	"	...	...	3¼	...	2.2
	"	...	...	6	...	2.1
	"	...	...	4	...	5.5
	"	...	...	3½	...	6.5
	"	...	...	5	...	5.1
	"	...	...	4	...	4.2
	"	...	...	2¾	...	5.2
	"	...	...	2½	...	8.1
	New Plymouth ...	...	...	2	...	8.7
	"	...	...	4	...	7.4
1875.	Napier	...	...	7	...	6.0
	"	...	...	12	...	3.1
	"	...	...	4	...	4.9
	"	...	...	4½	...	5.8
	"	...	...	2½	...	8.4
	"	...	...	3¼	...	6.7
1877.	Domain, Christchurch	...	...	1½	...	5.7
	"	...	...	2¾	...	8.2

AVERAGES of Sugar in Beets used in Germany for the manufacture of Sugar. Analysis by Herrmaun.

½ lb. average weight	...	...	...	11.4 per cent. of sugar.
1	...	...	...	9.4
1½	...	...	...	9.5
2½	...	...	...	7.4

Colonial Museum of New Zealand,
Wellington, 26th August, 1877.

JAMES HECTOR.

