These varieties must be kept separate throughout the experiment, and the following conditions should be observed as closely as possible, so that uniform results may be obtained for comparison:—

1. The ground must be prepared as for a turnip crop, but not to have been manured within three months of the time of sowing.
2. The seed, after steeping for twenty-four hours, is to be sown, by hand, in drills 18 inches apart, and the plants to be singled with an 9-inch hoe.
3. Several small patches or plots should be sown when there is much variety of soil and aspect in the locality, so that a fair average be obtained of what might be expected from cultivation on a large scale.
4. The roots should be lifted as soon as ripe, but only after and during dry weather
5. Ten cleaned roots of average size are to be weighed and forwarded to the Colonial Laboratory, Wellington, together with the information required in Form A.
6. A sample of the soil and subsoil from each plot in which the beet is grown to be furnished for analysis at the same time, in the manner and with the information required in Form B.

FORM A.—EXPERIMENTAL BEET CULTURE.

LOCALITY. PLOT NO.

Questions.	*Answers.*
1. Area of plot.	
2. Date of sowing.	
3. Date of showing above ground.	
4. Date of taking up crop.	
5. Number of sound roots.	
6. Total weight of crop after topping, the fangs and tails to be included.	
7. Weight of the largest and smallest root observed.	
8. Weight of the 10 roots forwarded for analysis.	

(Signed.)

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APPENDIX B2.

No. 3.

ESTIMATE of the Percentage of SUGAR contained in BEETROOT grown in the Wellington Botanic Gardens.

FOR the purpose of comparison, samples were taken for analysis at two periods: in February, when the growth of the roots was still vigorous; and in June, when the plant was thoroughly ripe and the leaves all withered down.

VARIETIES.	1. Collected in February.		2. Collected in June.	
	Average weight.	Sugar per cent.	Average weight.	Sugar per cent.
1. Silesia	3·5 lbs.	2·1	5 lbs.	5·5
2. Vilmorius	1·7 lbs.	6·7	4 lbs.	5·3
3. White Imperial ...	5·0 lbs.	2·2	3 lbs.	6·7*

The crop was grown on a slope facing the N.W., in a loose friable loam, chiefly derived from rotten sandstone rock.

J. HECTOR.

APPENDIX C.

No. 4.

Mr. R. J. CREIGHTON to the Hon. the COLONIAL SECRETARY.

SIR,— Auckland, 6th December, 1872.

I have the honor to acknowledge the receipt of your telegram in reference to the terms and conditions on which a bonus is to be paid on cured fish exported from the Colony. In reply, I beg to state that I have consulted with Mr. McLeod, and that the date, "1st November, 1872," will interfere with the claim of McLeod and Perston. They have exported considerable quantities of fish, and the date should be altered to "1st August, 1872." Up till this date, I believe, about fifty tons of dry cured fish have been exported by Perston and McLeod, but the difficulty is in creating a market. The first condition, therefore, "That the bonus will be paid to the producer on the production of account sales that the fish has been sold out of the Colony for fair market value," appears to me to be too stringent, and may defeat the object the Legislature had in view. It may be necessary to force the fish into consumption at considerable sacrifice, and the rigid application of the first condition would entail a double loss by the withholding of the bounty. I would therefore suggest that in any intended notice, the date be fixed at 1st August, 1872, and that the first condition be omitted.

I have, &c.,

The Hon. the Colonial Secretary, Wellington. ROBERT J. CREIGHTON.

* The highest yield included in this average was 8·1 per cent., which is sufficient to warrant the manufacture of sugar; the others being all too low.