

scale suitable to warrant the establishment of the beet-sugar manufacturing industry. From my study of the subject, which has had particular reference to the United States of America, it leads me to believe it is to be an industry not far behind the dairying, if not equal in its far-reaching effects upon the prosperity of the farmers and community generally. It has simply revolutionized those western States of North America, with a climate and conditions similar to this country, where it has been established, and, strange to say, it is only since 1890 that it has been a success in those countries. Farmers and factories had been ruined by the score up to that date, and it was not until they went in for deep cultivation that they succeeded. No black or coolie labour is employed in the beet-fields. The whole conditions are similar to this country, ordinary labour, according to ability, being paid from \$1 to \$1½ per day for work in the fields.

I hope I am not wearying you with this long epistle. The subject is a large one and worthy of unprejudiced investigation on the part of our Waikato farmers. If they would help the development of the sugar-beet industry, they would by its consummation put from 25 to 75 per cent. and more on to their land-values, which would mean actual cash in their pockets. If it has done that for other countries, there is no reason why it should not do the same for this.

I shall be pleased to give you further information on the subject if I am in a position to do so.

Yours, &c.,

Mr W Tucker, Cambridge West.

J A. Young.

P.S.—For your purpose, for the present, the usual formula for root crops would do in the way of manure.

EXHIBIT 10.—EXTRACT FROM PARLIAMENTARY PAPER H.—21, SESSION II, 1897
COST OF CULTIVATION IN CALIFORNIA.

Among the very successful sugar-beet farmers on the Chino Ranch are the Gustafson Brothers (Louis, Victor, and Charles). They came to Chino three years ago without any capital whatever, and commenced beet-farming on their own account, doing their work themselves thoroughly. The result was that they have been successful in every crop they have planted. They bought 20 acres of choice land for £35 per acre, and they have to-day a clear deed, having paid for it from beets raised on the land. They have for the 1893 season kept a carefully itemized account of their expenses of their 20 acres of beets, including their own work (which they counted at 6s. per day, and which amounted to £55). They harvested from the 20 acres 436 tons—that is, 21 tons 16 cwt. per acre—for which they received 18s. per ton. The figures are,—

	Cost of growing 20 Acres.	Cost of growing 1 Acre.	Cost of producing 1 Ton of Beet-roots.
	£ s. d.	£ s. d.	£ s. d.
Ploughing	8 0 0	0 8 0	0 0 4·4
Harrowing twice	2 8 0	0 2 4·8	0 0 1·3
Seed	6 0 0	0 6 0	0 0 3·3
Sowing ..	1 12 0	0 1 7·2	0 0 0·8
Thinning	16 0 0	0 16 0	0 0 8·8
Cultivating twice	2 8 0	0 2 4·8	0 0 1·3
Weeding	4 0 0	0 4 0	0 0 2·2
Topping	21 12 0	1 1 7·2	0 0 11·8
Ploughing out	8 0 0	0 8 0	0 0 4·4
Hauling	34 17 0	1 14 10	0 1 7·1
Sundries	12 1 0	0 12 1	0 0 6·6
Totals	116 18 0	5 16 11	0 5 4

Gross returns from the 20 acres = 436 tons (= 21 tons 16 cwt. per acre), at 18s. = £392 8s.
Gross returns per acre = £19 12s. 4d.
Net returns from the 20 acres = £275 10s.—i.e., £13 15s. 6d. per acre.

EXHIBIT 11.—COST OF RAISING SUGAR-BEET IN WYOMING, AND MARKET RATES OF
SUGAR-BEETS AT GRAND ISLAND, NEBRASKA, U.S.A.

COST OF RAISING SUGAR-BEET IN WYOMING.

The cost of raising an acre of sugar-beets in Wyoming is about twenty days' labour. Estimated at \$2 per day it would be as follows:—

	\$
Ploughing one acre, team one day ..	4
Harrowing and clod-crushing, team one-fourth day	1
Drilling and making irrigation furrows, team one-fourth day	1
Thinning and weeding, man five days ..	10
Irrigating, man two days ..	4
Cultivating, team one day	4
Harvesting, man four days ..	8
Storing or hauling to factory, team two days	8
Total	\$40