

column of the following table, columns two and three being calculated out per acre and per 1 ton of beets respectively:—

	Cost of growing 36 Acres.	Cost of growing 1 Acre.	Cost of producing 1 Ton of Beet-root.
	£ s. d.	£ s. d.	£ s. d.
Ploughing	14 8 0	0 8 0	0 0 5·3
Preparing ground	5 8 0	0 3 0	0 0 1·9
Seed	12 16 0	0 7 1·5	0 0 4·7
Planting	2 10 6	0 1 5	0 0 0·9
Thinning	21 12 0	0 12 0	0 0 7·1
Cultivating	5 0 11	0 2 9·6	0 0 1·7
Hoeing	14 0 0	0 7 9·4	0 0 5·1
Pulling and topping	74 18 0	2 1 7	0 2 3·7
Hauling to factory	59 18 6	1 13 3·5	0 1 10·2
Factory expenses	10 19 9	0 6 1	0 0 4·1
Totals	221 11 8	6 3 1	0 6 8·3

Gross returns from the 36 acres = 649 tons (=18 tons per acre), at 17s. = £551 13s.

Gross returns per acre = £15 6s. 5d.

Net returns from the 36 acres = £330 1s. 4d., being equivalent to £9 3s. 4d. per acre.

2. 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.

The applicability of these two statements to Victorian farmers must be left to their own judgment. It seems fair enough, however, to assume that what they can do in California we can do here to. In any case, the data just supplied indicate that our farmers will be well enabled to sell their beet-crops to a sugar-factory, with not a small margin of profit, at even considerably less than 16s. per ton. The yield per acre in the two cases quoted has been 18 tons and 21 tons 16 cwt. respectively. Besides these two returns there are twenty-four others to hand, relating to the 1893 season, for a total area of 308 acres, which gave 6,098 tons of beets—i.e., an average of 19 tons 18 cwt. per acre—their mean quality being represented by 14·118 per cent. of sugar, and the price realised averaging 17s. 5d. per ton. In the face of the above facts, coming from a country which is all but a replica of our own, the assumption must appear quite justified that a yield of 20 tons to the acre on the average may rightly be anticipated.

After having thus prepared the way, let us now proceed to demonstrate what the probable cost will be to produce sugar from beet-roots in this colony. This will be deduced from a practical instance from Germany, for which purpose the beet-sugar factory at Rostock, in the Grand Duchy of Mecklenburg, during its 1890–91 campaign has been chosen. This factory has a daily capacity of 300 tons of beet-roots. The paid-up capital of the company is £30,000; debentures, £11,050; other creditors, £12,669. Therefore the company has been working with a total capital of £53,719.