

I quite concur in the remarks made by Mr W E Gwillin, in his paper on sugar-beet, that 'No country in the world is better adapted for the growth of this valuable root than New Zealand.'

In conclusion, I only hope all Mr Gwillin says may be realized, and no one will, I know, be better pleased than our old friend Mr W A. Graham, who I hope will be spared to see it established and carried out successfully in Waikato.

Any information I can give you I shall be very happy to give, and with kind regards, believe me,

Mr J A. Young.

Yours, &c.,

T B. HILL.

EXHIBIT 8.—LETTER FROM MR. S FULLERTON, PRESIDENT FARMERS' CLUB,
TE KOWHAI

DEAR SIR,—

Te Kowhai, 12th October, 1901

At our last meeting it was decided that I should forward to you my experience in sugar-beet growing as an answer to the request expressed in your letter

I obtained a sample of White Belgium seed I sowed it on the 23rd November, and transplanted on the 13th February I used blood and bone manure, at the rate of 5 cwt. per acre. I hilled-up the plants once only, and rose the plants in May, and then they weighed an average of 3 lb. per root. I consider, had the seed been sown in drills about the 1st October, and not been transplanted, they would have given an average of 5 lb. per root.

I condemn transplanting, on the ground that it produces too many small fibres.

If the land is well cultivated the roots require but little working to protect them from the sun, as they have a tendency to grow into the ground.

I experienced no trouble from the fly

For beet-culture the land required should be skimmed in December, disced and ploughed in March, again ploughed in May, then left till the latter end of September, reploughed, harrowed, and the seed drilled in By this treatment you will save labour, and have clean ground free from weeds, and your plants will be undisturbed by weeding

I consider a crop of sugar-beet such as I have mentioned would give a yield of from 20 to 25 tons per acre.

To my mind the greatest trouble that stands in the way of growing sugar-beet for sugar purposes, in conjunction with winter dairying, is the carting to a central factory, as it would be worth as much to cart the pulp back as it would to cart the beet there. If juice-extractors could be worked in the various districts where beet is grown, there is no doubt that this industry would be a great boon to the Waikato farmers, as the soil and climate are so admirably adapted to sugar-beet culture. Wishing you every success in your new venture, I remain,

Yours, &c.,

S. FULLERTON, President, Farmers' Club.

J A. Young, Esq., Secretary Sugar-beet Committee, Hamilton.

EXHIBIT 9.—LETTER FROM MR. J A. YOUNG, DENTIST, HAMILTON (WITNESS).

DEAR MR. TUCKER,—

Hamilton, 9th October, 1901

I thank you for your valuable contribution to me on your experience of sugar-beet culture.

After careful study of your letter I came to the conclusion that, apart from the small-bird trouble, your only fault to find as a result of your experience is the finery nature of the roots, rendering them difficult to lift and then clean after Three things generally are conducive to the finger-and-toe formation in the sugar-beet-root: (1.) Seed inbred too much in endeavouring to obtain high percentage of sugar. (That is not likely to be the cause of your failure, as seed of that sort would hardly be sent to this country) (2.) Worked-out soil. By that I mean taking a third crop off the same ground. The best results are obtained by growing beets on the same soil only once in four years. That is the experience in California and Oregon, in the United States. An abnormally heavy grain crop usually follows the sugar-beet. (3.) Want of deep cultivation. This I really believe to be the cause of your trouble. No success worth calling such will be obtained until the land is worked down to 12 in. from the surface. Therein is the whole secret of successful sugar-beet-root cultivation. You would need to plough 6 in. and subsoil another 6 in. I am given to understand that very little cultivation of that sort is done in Waikato. If your land is good, and has been well worked, no doubt for a small area you could nearly get down 12 in. with the plough. The sugar-beet-root is different to your other root crops. It is the nature of it to grow in the ground, while your swedes and mangolds—white carrots too—grow mostly above the ground. As soon as the tap-root in the beet, which in good maturity is from 10 in. to 15 in. long, strikes the hard unbroken subsoil, it either turns off at an angle or stops there, and other roots strike out from the main root, hence you see a good cause for your fingers and toes. I hardly think your manure had much to do with your trouble.

Probably the finest root feed in the world for stock is the sugar-beet. Mineral and salt manures would help to make the roots large and suitable for feeding, but would be ruinous to them for sugar-manufacture. Ideal sugar roots are small—from 1½ lb. to not more than 4 lb.

The Government have promised me seed for distribution for this season if it is procurable in the colony They will want to be quick about it, anyway, you could sow quite up to February I believe sowing after the middle of October would get over a lot of the small-bird trouble, as after that there is generally plenty of green feed for them. In any case, small cultivations suffer most from the small birds. I will not forget you if I get seed.

My idea is that the dairy-farmers should cultivate small areas of sugar-beets as winter feed, and the experience so gained would put them in a position to say if they could cultivate on a large