

more vigorous beet is sown earlier, has a larger period of growth, and yields more produce per acre than either swedes or turnips under the same conditions of manuring: but for full crops it requires much heavier dressings of manure. (1)

The proportion of mangel leaf to root is, generally speaking, much less in the case of ordinary turnips, but more than in the case of swedes.

With the more extended root range of the mangel, it is less dependent on continuity of rain when growth is once well established; and it bears, in fact requires, a higher temperature than the turnip.

The mangel root contains a higher percentage of solid matter than either kind of turnip. But whilst the turnip leaf contains a much higher percentage of dry matter than the turnip root, the mangel leaf contains a much lower percentage of dry matter than the mangel root and also a very much lower percentage than the turnip leaf.

Superphosphate is much less beneficial to mangels than to turnips. In mangels, as in turnips, the amount of dry substance grown has a very direct relation to the amount of nitrogen available in the soil. More vegetable matter, however, was produced, and more stock food yielded from a given quantity of nitrogen applied to mangels than to either swedes or turnips. By the application of nitrogen to the soil for mangels, in several cases, there was an increased assimilation of about a ton of carbon per acre from the atmosphere.

Taking the average of 6 years, the amount of nitrogen recovered in the increased crop of mangels was about 60% of that supplied when nitrate of soda was used, about 42% when ammonium salts, about 50% when rape cake, and about 46% when an excessive amount, when a mixture of rape cake and ammonium salts was used. The additional amount of nitrogen accumulated in the leaves was returned to the soil as manure annually.

A. H. PLUMMER.

October 1898.

CORRESPONDENCE.

LENNOXVILLE, P. Q., Nov. 21, '98

To the Editor of the JOURNAL OF AGRICULTURE.

SIR: In your issue of Nov. 15, I notice you refer to on page 220 Slag vs. Supers. If convenient,

(1) From 85 to 95 tons of mangels to the acre were shown in Glo'stershire, Eng., this last month. Ed.

will you kindly inform me where I can obtain a copy of the report by Prof. Wright of the Technical College. By giving me that information you will greatly oblige,

Very truly,

S. L. SPAFFORD.

Reply.—Mr. Spafford, we fear, must write to the Principal of the Technical College, Glasgow, as we cannot help him to a copy of the Report.
—ED.

The Dairy.

CHEESE AND BUTTER

The patrons of cheeseries and creameries are at present sadly perplexed as to whether they should keep on making cheese or turn their attention to butter.

It may be interesting to consider the present situation of these two articles.

Our market is governed by the requirements of the English market, as all productive centres depend upon the centres of consumption. We must therefore be guided in our production by the state of the English market.

Now, the first thing that strikes us when we consider this is that, this year, our exports have been less than those of last year. Thus, up to mid-September, we had only sent 1,115,100 boxes of cheese in England, against 1,349,589 boxes up to the same date last year.

It would seem, at first sight, that this would be a favourable prognostic for the future, and that our dairymen would have to fill up the deficit. But this idea would be erroneous, for last year England received more cheese than she could consume.

Consumption has, in point of fact, its limits, and this is proved by our not having been able to reach the amount of our exports of 1897, in spite of the low price of cheese during the whole season of 1898; so that, it is clear that consumption has not been encouraged by the low prices.

Many people assert that, while our means of production were increasing, consumption in Britain was falling off, on account of the low-price of other articles of food, and because the working classes there were altering their methods of provisioning their families. Strikes, too, which laid