

Notwithstanding this fact, it is well known that while on the continent of Europe beet-sugar-making is a large and increasing interest, the attempts made in Britain to establish this branch of industry have proved failures. So far as England is concerned, three manufactories have been started, but were unable to make the thing pay, owing to the very heavy differential duty levied upon indigenous sugar. In other words, protection ruined them. The West India influence in the British Parliament was fatal to home industry. An effort to set going a similar establishment in Ireland also failed, from what cause or causes we are not informed, but it is distinctly stated that it was in no respect owing to the soil or climate not being adapted to the cultivation of the root. The French Government adopted a different line of policy, and protected the beet-sugar industry while in its infancy, by levying a duty on imported sugar. After a time a small tax was imposed on beet-sugar, which was gradually increased until in 1848 an equalization of the duty was effected, and the home-made sugar put upon the same footing as the imported article. Still the manufacture of beet-sugar progressed, being found highly profitable, until at length the French Government imposed a differential duty of five francs per cwt. on beet-sugar above that paid by the tropical sugar. So far from this branch of industry being annihilated or even injured by the governmental policy just described, it has steadily prospered, so much so that the product has more than doubled, as the following statement will show:

PRODUCE OF BEET-SUGAR MANUFACTURE IN FRANCE.

Year.	Tons.
1847-8.....	51,716
1850.....	100,000
1864-5.....	147,000
1865-6.....	{ 275,000 (a very fine season.) }
1866-7.....	215,000
1867-8.....	{ 210,000 to 215,- 000 expected. }

It thus appears that the beet-sugar manufacture, when once fostered into strength, is quite competent to hold its own against the tropical article, and even beat it in the contest. This would seem quite natural when it is considered that cane juice does not yield more than 10 or 12 per cent. of saccharine, that this must be expressed, boiled down, and finished for market in a very short space of time, rendering harvest labour costly, and that then there is a long, expensive, risky voyage to be encountered before the market is reached. A loss of 15 per cent. on the sugar and 20 per cent. on the molasses by drainage during the voyage must be counted on, as also the occasional bursting of a hogshead of sugar from fermentation, in which case there is total loss, as the scattered contents only sweeten the bilge-water in the vessel's hold.

Not in France only, but in the Continental States, beet-root-sugar making has become an established and growing industry, as the following statement will show:

QUANTITY OF BEET-SUGAR MADE IN GERMANY.

	Tons.
1864-5.....	170,000
1865-6.....	185,000
1866-7.....	200,000
1867-8 estimated at.....	165,000

AUSTRIA.

1864-5.....	85,000
1865-6.....	70,000
1866-7.....	90,000
1867-8.....	95,000

Even in Russia the business is gaining a foothold. So long ago as 1856-7 nearly 7000 tons were made in that country. Returns of a more recent date are not given, but the manufacture of beet-sugar is constantly increasing; new and extensive works are springing up in every part of the country; and nearly enough is now produced to supply the whole population. In these countries the cultivation of beets has not interfered with any other branch of husbandry. No fewer cattle and no less wheat are raised than

formerly. In fact, wherever this branch of industry has been introduced the agriculturists have become wealthy.

The authority we are quoting strongly maintains that no reason exists why this manufacture should not succeed as well in the United Kingdom as on the Continent. He contends that the question rests, in point of fact, wholly with the agriculturists, whether it would pay them—not as well as wheat, for it must not for a moment be supposed that the cultivation of the sugar-beet would supersede that of wheat—but whether selling the roots would pay them as well as consuming them on the farm, or as growing common mangolds or turnips for the purpose. This question is pretty fully discussed, and the conclusion arrived at that it is for the farmer's interest to raise beets for the sugar market; that it will pay him as well if not better than the present system of root-growing and stock-feeding; that instead of impoverishing, it will enrich the soil, while it affords a living profit and something beyond; and that by feeding the residuum of the roots after the juice has been extracted, he can, with the addition of a portion of artificial food, fatten more stock than he now does. The last consideration adduced appears to be one of much importance. Beet pulp is about 30 per cent. of the entire weight, so that nearly one-third of the beet crop is available for feeding purposes after the juice has been taken out of it, and all this, be it remembered, or very nearly all of it, is solid food, and contains a small percentage of saccharine, it being found impossible to extract it all. On the Continent the sale of the residue is a regular part of the business of the manufacturer, though in some of the large establishments it is consumed on the premises, animals being bought and kept for the purpose.

If the above reasonings and conclusions are correct, and we see no reason to dispute them, they appear to show that the manufacture of beet-sugar is quite practicable, and tolerably sure to be remunerative in Britain; and if in Britain, the question very naturally arises, why not in Canada? The beet flourishes well in this country, and we believe is by no means deficient in the saccharine property, though we are not aware how far this point has been settled by chemical analysis. Until the appearance of the paper under notice, we did not know to what causes the failure of beet-sugar making in England was to be attributed. If the chief cause has been the West India monopoly and repressive taxation, of course it puts the questions of practicability and profit in a new light. We should greatly like to see this matter brought to a practical test. Of course this would involve the hazarding of some private or public capital; but success would open a new and important line of business that could not fail to be of great benefit to the public, while failure would set at rest a much agitated question, which only actual experiment can decide.

Value of a Railroad to the Farmer.

In several parts of the Dominion of Canada, railroads are being projected, and the agricultural communities through which they pass are asked to tax themselves towards the construction of such railways. People in general are averse to being taxed. They shrink from it with instinctive dislike, and deem that line of policy wise which keeps taxation down to the minimum point. But it is possible to indulge a short-sighted and unprofitable economy. We are by no means in favour of reckless railway building, nor do we counsel every farmer to try and get an iron track close to his own door. But the advantages of near access to market and cheap transportation of grain are very great. They benefit the farmer's pocket more than those who have only given the subject a cursory consideration are apt to think. The following, from an American journal, puts the subject in a striking, and as we believe, correct and truthful light:—

It is proper to bear in mind that the figures here given present only one of the many advantages that railroads bring. To haul 40 bushels of corn 50 miles on waggon would cost at least \$12 for team,

driver and expenses. A railroad would transport it for \$4 at most. Allowing an average of 40 bushels per acre, the crop would be worth \$3 more per acre, or 8 per cent. on \$100. As the relative advantage is about the same for other crops, it is clear that a railroad passing through a town would add \$100 per acre to the value of the farms. A town 10 miles square contains 64,000 acres. An increase of \$100 per acre is equal to \$6,400,000, or enough to build 200 miles of railroad, even if it cost \$32,000 per mile. But 200 miles of road would extend through 20 towns 10 miles square, and cost \$10 per acre, if taxed upon the land. These figures are given merely as an illustration. If the farmers had taxed themselves to build all the railroads in the country, and given them away to any companies that would stock and run them, the present increased value of their lands would have well repaid all the outlay.

JOURNAL OF THE FARM.—In place of the *Culturist*, one of our American exchanges which has been discontinued, we now receive the *Journal of the Farm*, a paper published in Philadelphia by Daugh and Sons. Of course, as we should all expect, one of the objects of this journal is to advocate the claims of the superphosphate manufactured by the publishers; but there is besides a large amount of valuable information relating to the garden, the farm, and rural affairs generally, and a due portion of its pages is set apart for household and fireside reading.

DIEHL WHEAT.—We direct attention to the advertisement of Mr. Lewis Springer in the present issue. We have before us a sample of the wheat which he has for sale, and have pleasure in stating that it is of excellent quality, sound, plump, and even. We receive favourable reports of this variety of wheat in many localities, though some parties have expressed their disappointment in regard to its merits. Mr. Springer says he has now grown the Diehl wheat for three seasons, the first time, however, only in very small quantity, in order to raise the seed. Last season he raised forty-four bushels to the acre, all free from midge. This season he expects to thresh out not less than forty bushels to the acre; and the grain is still free from midge. The soil of his farm, in Barton, near Hamilton, is a sandy loam. We recommend farmers on similar land to make a trial of this promising variety. It should be sown during the first fortnight in September.

Agricultural Intelligence.

British Agricultural Gossip.

BEDFORDSHIRE SHOW—WOBURN ABBEY—MESSRS.
HOWARD—AGRICULTURAL MACHINERY—MR.
MECHI—WEATHER AND CROPS.

To the Editor of THE CANADA FARMER:

SIR,—During the last few weeks I have been over portions of the counties of Middlesex, Hertford, Bedford, Cambridge, Suffolk, and Essex, have attended several markets and shows, and have otherwise had much personal intercourse with different parties connected with the landed interest. I have been invariably met by all classes in a kind and courteous spirit, and the being known as a Canadian has more than once enabled me to visit museums and other places of public interest, when the strict application of their regulations would have shut me out. I tell the people that in becoming a Canadian I am not one whit the less an Englishman, and that while our people love and cherish their native or adopted home, they feel proud of the old country, and are fully sensible of the honour and advantages of a continued connection with it. The doctrine that it is the duty and interest of the mother country to transport her surplus labour and capital to her colonies, where it will fructify and increase the strength and wealth of the empire, is certainly not unacceptable to the rural population, and in Lancashire even I have met with several instances of its recognition. The truth is, only the merest fraction of the British people can be considered in any sense or degree anti-colonial; "ships, colonies and commerce" is old England's motto and guiding star