

it is clear that,—every thing being equal,—we can manufacture double the quantity of sugar, from the same capital employed, that they can on the continent. This advantage, in my opinion, fully compensates for the difference of wages.

In answer to your fifth and last question I may state that the *per centage* of sugar produced depends entirely on the quality of the beet, the nature of the soil which produced it, the system of cultivation adopted, the state of preservation the beet may be in when worked, and the mode employed for the extraction of the saccharine juices. The quantity of sugar contained in the best beets varies from 12 to 18 per cent; but manufacturers consider that they have been quite successful, if they can obtain an average of eight per cent of sugar, (besides a small per centage of molasses), as the final result of one years work. On the other hand when they cannot extract more than five per cent of sugar from the total weight of the beets worked, they consider their work as unprofitable. However, the excise duties which manufacturers of sugar generally pay in Europe, must affect considerably this incidental question of profit and loss.

I have the honor to be,

Sir,

Your obedient servant,

EDWARD BARNARD, JR.

John Lowe, Esquire,  
Secretary, Department of Agriculture,  
Ottawa.

### NOTES ON BEET ROOT SUGAR.

(*Referred to in my official letter to Mr. John Lowe, dated 29th March, 1872.*)

#### 1. PRODUCTION of BEET ROOT SUGAR in Europe.

See "Fabrication du sucre de Betterave." (*Translation from the German.*)

Year.	Total production in tons.	Average for each Manufacturer.	Number of Factories.	Remarks.
1866-67	France.....216,854	499 tons.	434	All fractions are emitted.
" "	Germany ....202,850	685 "	296	The total productions of beet sugar in Europe has nearly doubled within the last ten years.
" "	Austria.....103,000	544 "	140	
1865-66	Russia .....149,000	575 "	259	For Russia and Belgium the amounts mentioned here can truly be doubled to obtain the present production.
1867-68	Belgium. .... 40,000	370 "	108	
" "	Holland. .... 5,790	355 "	18	
1866-67	Poland,..... 15,000	276 "	41	