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AGRICULTURE.

REPORT ON THE AGRICULTURAL CAPABILITIES OF THE PROVINCE OF NEW BRUNSWICK.

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(Continued from our last.)

CHAPTER VI.

Actual and comparative productiveness of the Province, as shown by the average quantities of Wheat and other Crops now raised from an Imperial acre of Land, in the different Counties.

In the preceding Chapters I have given a sketch of the general agricultural capabilities of New Brunswick, as they may be inferred from its geological structure, and of the absolute and comparative productive qualities of its soils, as deduced from practical observation and enquiry. But the natural qualities of the soil may be neglected, overlooked, or abused. The actual yield of the land may be very disproportionate to its possible yield. The crops may be less than they ought to be, for one or other of many reasons, to which I shall advert in the subsequent part of this Report.

It is in fact the actual condition of practical agriculture in the Province which will determine the actual productiveness of its soils; while on the other hand, the possible productiveness of its soils being known, the amount of produce actually raised, will serve as an index or measure of the actual condition of the agricultural practice.

Looking at the matter in this point of view, it appeared to me of much consequence to collect as widely as could be done with the time and means at my disposal, numerical statements as to the actual number of bushels of the different kinds of grain and root crops usually cultivated within the Province, which were now raised from an Imperial acre of land in its several Counties. Finding it impossible to collect all these data myself, I addressed a Circular to the farming proprietors and Agricultural Societies in the several parts of the Province, and from the answers I have received, the following Tables (No. IV. V.) have been compiled. They are not to be considered as rigorously accurate; they are liable to certain suspicions, to which I shall presently advert: but they are the first of the kind that have ever been compiled in reference to this Province; the numbers they contain have been given, I believe, according to the most careful judgement of the persons by whose names they are guaranteed, and in the absence of better information, they are deserving of a considerable amount of credit.

These Tables exhibit several facts of an interesting and some of a very striking kind: thus—

1. The produce actually raised differs much in different parts of the same County. Thus, in Westmorland, one person returns 15 and another 20 bushels as the average produce of wheat; in King's, one gives 15 and another 25; in Sunbury, one gives 12 1-2 and another 20; in York, one gives 15 and another 32, and so on. Similar differences exist in regard to other kinds of grain.

Such differences are natural enough, and do not necessarily imply any incorrectness in the several returns. They may arise from natural and original differences in the nature of the soil; from its being more or less exhausted by previous treatment; or from the actual farming being in one case better and more generous than in another.

2. In regard to Wheat, the lowest minimum is in Queen's, where 8 bushels are given as sometimes reaped. In Saint John, Charlotte, and King's, the minimum is 10 bushels; from Carleton no return is given, and altogether the answers from that County are few and therefore defective. The largest maxima are from Kent, Charlotte, and York, where forty, thirty six, and thirty two bushels respectively are sometimes reaped.

3. In regard to oats, only one County, (Queen's) ever reaps less than twenty five bushels an acre, according to these returns. In that County, as little as thirteen bushels is occasionally reaped.

In four Counties the crop sometimes exceeds 60 bushels; in two others 50; in one, 45; and in four, 40 bushels an acre. These numbers indicate what is indeed confirmed

by numerous other circumstances, that not only do oats succeed admirably, but that they are well adapted to, and are one of the surest or least uncertain crops now grown in the Province.

4. As to Maize or Indian Corn, it will be seen that only in two Counties, (King's and Queen's,) is the minimum stated at less than 35 bushels an acre, while in four Counties the smallest yield of this crop is represented at 40 and 45 bushels. In Sunbury, the large return of 80 bushels an acre is sometimes obtained, and in Charlotte and Northumberland, as much as 60 bushels.

This crop is liable to injury from early frosts, and is therefore uncertain in this climate, which by the great heat of its summers is otherwise well adapted to its growth. The four Counties of Sunbury, Queen's, Charlotte, and Northumberland, would seem by the returns to be specially favourable to this crop. If so its larger cultivation should be encouraged.

5. As to Buckwheat, 15 bushels an acre are the smallest return, while crops of 70 bushels are sometimes reaped.—The experience of the last two years has shown not only that this crop in one or other of its varieties is tolerably certain, but that it is well adapted to the exhausted condition of many of the soils, and affords also a very palatable food.

6. Of Potatoes, the smallest return is 100 bushels, or about three tons an acre; but in Queen's County, a thousand bushels, about fourteen tons, are sometimes obtained. This latter amount is rarely surpassed even in the West of Scotland, the north western parts of England, and in Ireland where the soil and climate are the most propitious to this root.

7. But the most striking fact brought out by these Tables is the comparative high number by which the average produce of each crop in the entire Province is represented. These averages appear in the last line of the second Table and are as follow:—

VI. Wheat,	19 11-12, say 20 bushels.
Barley,	29 bushels.
Oats,	34 do.
Buckwheat,	33 3-4 do.
Rye,	20 1-2 do.
Indian Corn,	41 3-4 do.
Potatoes,	226 1 2 do. or 6 1-3 tons.
Turnips,	456 do. or 13 1-2 tons.

No very correct or trustworthy averages of the produce of the different crops in England, Scotland, or Great Britain generally, have yet been compiled. It is believed, however that 25 bushels of wheat per imperial acre, is a full average yield of all the land in Great Britain on which this crop is grown; some places, it is true, yield from forty to fifty but others yield only ten to twelve bushels per acre.

It is of less importance, however, to compare the above averages with any similar averages from Europe. It will be more interesting to Your Excellency and the Legislature, to compare them with similar averages collected in other parts of the Continent of America.

In the yearly volume of the transactions of the New York State Agricultural Society, for 1845, an estimate is given of the produce per imperial acre of each kind of crop in the several Counties, and a series of general averages for the whole State. The State averages, compared with those for New Brunswick above given, are as follow:—

VII. Average produce per Imperial Acre.	
State of New York.	New Brunswick.
Wheat, 14 bushels.	20 bushels.
Barley, 16 do.	29 do.
Oats, 26 do.	34 do.
Rye, 9 1-2 do.	20 1-2 do.
Buckwheat, 14 do.	33 3-4 do.
Indian Corn, 25 do.	41 3-4 do.
Potatoes, 90 do.	226 do.
Turnips, 88 do.	456 do.
Hay, 134 do.	134 do.

The Superior productiveness of the soils of New Brunswick, as it is represented in the second of the above columns, is very striking. The irresistible conclusion to be drawn from it, appears to be, that looking only to what the soils under existing circumstances and methods of culture are said to produce, the Province of New Brunswick is greatly superior as a farming country to the State of New York.

In the first of the Tables above given, that which exhibits the actual yield of the different crops, in the several parts

of York and Carleton are generally considered among the best adapted for the growth of Indian Corn, but of this the returns do not afford evidence. I am somewhat surprised however that more returns should not have been received from the County of Carleton.

of the Province, it will be seen that instead of giving an average, many of the authorities give the highest and lowest limits of the crops they usually reap from an acre. Thus in Sunbury, Mr. Hatheway gives for wheat the wide limits of 45 to 80 bushels, for buckwheat 20 to 60, and for Indian Corn 40 to 80 bushels; others give limits quite as wide, out of which it has been very difficult for me to extract any precise truth. In all such cases I have taken the mean between the two numbers sent to me, and from these means have calculated my averages. Thus in the case of Sunbury, I have supposed that Mr. Hatheway meant to tell me, that the average produce of wheat in that County is 22 1-2 bushels, of buckwheat 40 bushels, and of Corn 60 bushels.

It is just possible, however, that such was not the meaning of the numerous gentlemen who have sent me returns in this form of highest and lowest yields, and that the averages I have deduced may therefore be higher than the truth. To meet this possibility, therefore, I have deduced a second series of averages, using the lowest numbers or limits only where two limits are given. In Sunbury, for example, I have taken 15, 20 and 40, as representing respectively the produce of wheat, buckwheat and Indian corn in bushels per imperial acre. As nearly one half of the returns give, as Mr. Hatheway does, the highest and lowest, and not the mean return, the averages I have thus arrived at are most probably below the truth. The following Table exhibits these, along with the former averages, and with those for the State of New York:—

VIII. Average produce per Imperial acre.			
In New Brunswick.			
	From the minimum Returns	From the whole returns.	In New York
Wheat,	17 3-4 bush.	19 11-12 bush.	14 bush.
Barley,	27	29	16
Oats,	33	34	26
Buckwheat,	28	33 3-4	14
Rye,	18	20 1-2	9 1-2
Indian Corn,	36 1-2	41 3-4	25
Potatoes,	204	226	90
Turnips,	389	456	88

My object in computing these second averages, was to compare them also with those of the State of New York, and it will be seen that the numbers in the first column of the above table, though in every case smaller than those in the second column, are still in every case larger than those in the third column, which represents the New York averages. We seem still therefore to be driven to the conclusion that, as a farming country, New Brunswick as a whole is superior to New York State as a whole.

But it is known that the north western part of the State of New York is naturally very rich, and that on the shores of Lake Ontario and the banks of the Genesee River, very fertile lands extend, yielding large crops of Superior Wheat. I extract therefore from the tables of the New York State Agricultural Society the average produce of the several crops in three of the Counties of the North Western District. In the following Table they are compared with the averages for the whole of New Brunswick:—

IX. In the State of New York.				
Genesee, Ontario, Niagara.		New Brunswick, Lowest average of whole Province.		
Wheat,	16 1-2	16	18	17 3-4
Barley,	15	19	19	29
Oats,	23	32	29	33
Buckwheat,	19	21	17	28
Rye,	10	9	8 1-2	18
Indian Corn,	25	29	29	36 1-2
Potatoes,	122	106	110	204
Turnips,	105	148	155	389

In the capability of growing all the common crops on which man and beast mainly depend, it would appear from a comparison of the above numbers, that the whole Province of New Brunswick taken together, exceeds even the favoured Genesee Valley, and the southern shores of Lake Ontario.

Although deprived at present of the opportunity of obtaining access to existing statistical details, relating to the agricultural condition of the other States of the Union generally, yet the possession of the Report of the Ohio "Board of Agriculture" for 1848, published early in the present year, enables me to compare the New Brunswick averages with those of that Western State for the year 1848. These Ohio State averages I have compiled from a series of County Reports, which are appended to the general Report of the Board which is presented annually to the State Legislature. Compared with the whole Pro-