

It is necessary in explanation of the above statement to say that the entries were taken this year in a somewhat different manner to last year, the articles not enumerated in the prize list being entered along with the particular class to which they most naturally belonged instead of a separate book, as last year.—Dividing the 523 non-enumerated entries among the various classes, (the largest part of them being in the Horticultural, Manufacturing, Implements, Fine Arts, and Ladies Department,) it will be found that the scale in many of the classes will be turned in favour of Toronto.

# NORMAL SCHOOL EXPERIMENTAL FARM.

To the REV. DR. RYERSON, *Chief Superintendent of Education.*

REV. SIR,—I have the honor to submit to you the accompanying report and descriptive list, containing the results obtained from the crops grown on the Experimental Farm ground attached to the Normal School and Model Schools, which, together with thirty-seven specimens of grains, roots, vegetables, and fruits, I prepared and sent to the Secretary of the Agricultural Association, for exhibition at their last great annual show, held at Hamilton. Judging that you might wish to disseminate, or have it for reference, I enclose a copy of my letter to Professor Buckland.

I might mention, and that from personal observation, that this collection of specimens attracted much attention from a great portion of the visitors.

I am also very happy in having to report most favorably of the ornamental part of the grounds. The shrubs and trees, with very few exceptions, have all taken very well; and many of them have grown since planted in the spring.

The grass has done remarkably well, as every one visiting the ground's may see. It is now, at this present time, much finer and closer than many a lawn which has been made for years.

The show of annuals and other summer flowers, which were put in temporarily, until the grounds were so far finished as to allow of the botanical arrangements, have done well, making the grounds gay during the whole season.

The portion of the grounds on the east side of the building, which has wanted so much filling up, is now very nearly completed, and I will have the walks laid down in it this fall. In the spring, I shall be able to sow it down and plant it uniformly with the other parts of the grounds, after which the permanent botanical arrangement, as originally contemplated, will be proceeded with.

The following are the reports of the Judges upon the specimens sent from the Schools:

The Judges on the agricultural productions in whose class the specimens were entered, say:

"We have much pleasure in recommending the collection of grains, roots, and vegetables, from the Normal School grounds, to favorable notice, and consider them in every way worthy of the Institution, as also being brought out in a manner well calculated to convey both useful and interesting information."

The Judges on the horticultural department also noticed them as follows:

"A fine collection of grains, roots, and vegetables with a report, from the Normal School grounds, highly commendable, as conveying information from experiments."

I am, with respect, Rev. Sir,

Your most obedient servant,

WILLIAM MUNDIE.

Toronto, October 25th, 1853.

To the Secretary of the Provincial Agricultural Association.

SIR,—Regarding the accompanying thirty-seven specimens of grain, roots, vegetables, and fruits, sent for exhibition from the Experimental Farm ground attached to the Normal Schools at Toronto, I would beg to state that they are not exhibited for competition, or for anything very extraordinary in themselves, but with a view to explain the experiments which have been made, and the results obtained therefrom. The details are more particularly described on the cards attached to the various specimens.

The soil on which the operations have been carried on is, with a few slight exceptions (which are noted on the descriptive cards), of a very light sandy nature, lying on a deep bed of blue clay, very tenacious, and generally about an average depth of from three to four feet from the surface. In short, the soil was of such a character when we commenced, as, at a distance of twenty or thirty miles from a city or town, would be pronounced poor sandy common, which would not pay for cultivation.

The operations for improving it were commenced last fall; the first step was to underdrain it; the drains were put in at the average depth of three feet six inches, and twenty-four feet apart. The whole was then sub-trenched, that is—about one foot of the surface soil was dug up and thrown forward in trenches, and the under, or sub-soil, was stirred and left in the bottom in its original place: the loosening being about an average depth of twenty inches; and although done with the spade, was made to resemble sub-soil ploughing as nearly as possible; or what might be equally well done with the subsoil plough, if operating on a large scale.

In the process of cropping in the spring, the ground, generally, got a moderate dressing of manure, which consisted of about two-thirds stable-yard manure, with one-sixth street scrapings, and one-sixth leached ashes; these were intimately mixed and broken up. The quantity given was varied according to the nature of the crop intended, a minute detail of which would be too lengthy for this paper.

On the whole, considering the originally poor and light nature of the land, and also the great dryness of the past summer, the results obtained have been most satisfactory, both on the cultivated or farm portion of the land, and also on the portion laid out in grass lawn, fruits, flowers, and shrubbery, fully establishing the great benefits to be derived from underdraining and subsoiling, especially on light shallow soils lying on retentive under-strata, as mentioned above.

It may be taken as a certainty, that the deeper the subsoil is moved and loosened, there will be