

ANALYSIS.

	Manitoba.	Russia.
Sand	59.82	53.71
Silica, amorphous	5.45	12.80
Ferric oxide	4.00	4.13
Alumina	7.14	6.04
Titanic oxide	.64	.63
Lime	.61	.75
Magnesia	.61	.21
Sulphuric oxide	.03	.06
Carbonic oxide	.37	.02
Phosphoric oxide	.13	.16
Potash (with trace of Soda)	1.91	1.97
Organic matter	12.49	14.91
Containing humus (soluble in ammonia)	(.45)	(.44)
“ total nitrogen	(.44)	(.31)
Water	6.86	5.04
	<hr/> 99.76	<hr/> 100.43

“With the exception of the amounts of carbonic acid, and of the proportion of the silica which is amorphous, the composition of these two specimens is almost identical.

“The peculiarly large amounts of organic matter and nitrogen, as well as of the principal constituents of the ash of plants, lime, potash and phosphoric acid, are all to be noted and accord with the well known exceeding fertility of each of these soils.

“The soil from Manitoba is described by Dr. Dawson as spread with great uniformity over the Red River Valley, a wide prairie on the first or lowest prairie level of the north western country. It has a depth of say one to four feet, and consists of the superficially modified parts of the sediments of a later glacial or post-glacial lake, which at greater depths are found in the form of well bedded silts. The surface is a dark mould, composed of the same material as the subsoil, but mingled with much vegetable matter. The uniform fertility of this soil cannot be exaggerated.

“The Tschernozem or Black Earth of Russia has long been famous by reason of the heavy crops which it has, in many localities, annually produced for almost a century. Prof. Krassnof, in a paper (Proc. Geol. S. Amer. 1891, p. 68,) describes it as distributed over the steppes of the