

ANALYSIS OF MANITOBA SOIL.

As bearing on the particular advantages of Manitoba, for the cultivation of wheat, the following analysis of a specimen of the alluvial soil from the prairie of the Province of Manitoba is given. It is by Professor V. Emmerling, Director of the Chemical Laboratory of the Agricultural Association of the University of Kiel, Holstein, Germany:—

(*Translation of Letter to Senator Emil Klotz.*)

"KIEL, 29th April, 1872.

"HON. SENATOR:

"The analysis of the Manitoba soil is now completed, and the result is in 100,000 parts:—

Potash.....	228 7
Sodium.....	33 8
Phosphoric Acid.....	69 4
Lime	682 6
Magnesia.....	16 1
Nitrogen.....	486 1

(Signed,)

"Yours truly,
"V. EMMERLING."

(*Extract from Letter of Senator Emil Klotz to Jacob E. Klotz, agent for the Dominion Government.*)

"KIEL, 4th May, 1872.

"After considerable delay, I succeeded in obtaining the analysis of the Manitoba soil from Professor Emmerling, Director of the Chemical Laboratory of the Agricultural Association of this place, and hope it may be of service to you. Annexed I give you our analysis of the most productive soil in Holstein, whereby you will see how exceedingly rich the productive qualities of the Manitoba soil are, and which fully explains the fact that the land in Manitoba is so very fertile, even without manure.

"The chief nutrients are, first, nitrogen, then potash and phosphoric acid, which predominates there; but what is of particular importance is the lime contained in the soil, whereby the nitrogen is set free, and ready to be absorbed in vegetable organisms. The latter property is defective in many soils, and when it is found defective recourse must be had to artificial means by putting lime or marl (a clay which contains much lime) upon the same.

"According to the analysis of the Manitoba soil, there is no doubt