

COMMITTEE ROOM 46,

HOUSE OF COMMONS,

FRIDAY, 18th May, 1894.

The Select Standing Committee on Agriculture and Colonization met this day, at 10.30 a.m. Dr. Sproule, chairman, presiding.

Mr. FRANK T. SHUTT, M.A., chemist of the Dominion experimental farms, was present by citation, and being called, addressed the committee as follows:—

Mr. CHAIRMAN AND GENTLEMEN,—In coming before you again, after an interval of another year, to give an account of the work accomplished by the chemical department of the experimental farms, it will only be possible for me, as on former occasions, to touch very briefly upon some of the more important features of that work. I shall have, of necessity, to pass over, without even mentioning much that is of interest, and for a detailed account of the work of the year, I shall have to refer you to my report which has lately been issued.

INCREASE OF INTEREST BY FARMERS IN AGRICULTURAL CHEMISTRY.

It is not necessary for me here to emphasize the important character of the work in which I am employed, namely, that of investigating agricultural problems by the means which chemistry affords, and of disseminating knowledge respecting agricultural matters, that is to say, respecting soils, fertilizers, cattle, fodder and the like—a knowledge which must necessarily lead our farmers to a clearer understanding of what they are doing, resulting in a more economic and profitable practice on Canadian farms. I say it is unnecessary for me to dwell upon the important character of this class of work, but I feel sure you will be glad to learn that every year marks a keener interest on the part of our farmers throughout the whole country, in our work and experiments. Each succeeding year sees a greater desire evinced by our agriculturists to avail themselves of that knowledge and that assistance which, we, at our experimental farms can offer them.

During the last few years my work has naturally arranged itself into several subdivisions, or classes, and with your permission I shall briefly outline these and speak somewhat of their character and extent.

ANALYTICAL WORK.

This includes the planning and working out of all agricultural problems, the solution of which it is deemed will be of value to the country, or at any rate to a large number of Canadian farmers. As examples of this kind of work, I might mention the chemical and physical examination of typical virgin soils which represent large areas in the Dominion, the question of the amelioration of alkaline soils, the rendering soluble of the mineral phosphates, and the estimation of the nutritive value of the various fodders. These are all questions which are of wide importance, and the results of which would benefit to a large extent the whole country.

VIRGIN SOILS OF CANADA.

I would speak for a moment upon the first of those I mentioned, namely, the virgin soils of Canada. In the examination of typical soils which represent, as I have said, large areas of territory, soils which have neither been manured nor cropped, we can obtain much needful information regarding the amount and the character of the plant food which they contain. Although it is impossible, in the present state of chemical science, to ascertain the exact amount of immediately available plant food in the soil, yet a chemical analysis tells us distinctly the total