

## Agriculture and Colonization.

reports, I would say as far as our work has gone at present, that we have ascertained the alluvial soils of certain river valleys in that province to be exceedingly rich in plant food. I refer especially to the soils of the Fraser and the Pitt River valleys. These are found to be exceedingly fertile, being rich in all the soil elements of plant food.

Another class of soils in British Columbia are known as the Bench soils. These differ very much as regards the amounts of their fertilizing constituents, from the soils just mentioned. They are very much poorer in plant food. As a class I have found these Bench soils to be sandy and by no means comparable to our richer Canadian virgin soils in the other provinces, and to those in British Columbia to which reference has been made.

*By Mr. Carpenter :*

Q. Are you spending much time over worn out soils and the best method of improving them? That is a matter of great importance to the older sections of Canada?—

A. We have not done much in that way yet, save by way of suggestion. The soils sent in by farmers do not receive a complete analysis. Such work requires a great expenditure of time, and it is not possible nor thought advisable under the circumstances to submit all samples sent in by farmers to such complete analysis. The samples of soils received from farmers are subjected to a preliminary chemical and physical examination, from the results of which suggestions for the treatment of the soils are made.

*By Mr. McDonald (Assiniboia) :*

Q. Have you analysed the reclaimed lands on the coast of British Columbia, that is the dyke lands?—A. One of the soils I have referred to—that of the Pitt meadows is one. It is an exceedingly fertile soil.

Q. More so than the Fraser River valley?—A. The soils are very similar, and without referring more particularly to the figures, I could not at the moment make a strict comparison. It is, however, an exceedingly fertile soil.

In reply to the question respecting analyses of soils from the older provinces of Canada, I may say that we received 49 samples of soil from farmers. That may not seem a large number, but considering that a soil analysis demands a great deal of very careful work, you will understand that there has been a considerable expenditure of time given to this class of work.

*By Mr. Carpenter :*

Q. You are supplied with the necessary apparatus to go on with a number of analyses at the same time?—A. We have to do that. A chemist is obliged to have many operations going on at the same time.

Q. Is it possible that the whole 49 samples could be examined at once?—A. No. We are not quite able to do that but we manage to have a good many operations going on simultaneously.

I was referring to the second class of British Columbia soils known as the bench soils which are light and sandy as to their character. In connection with that fact I would say that notwithstanding their constitution many of them have produced excellent crops. This is probably due as much to the favourable climate of the province as to the soils. In fact, as you are aware, the fertility of the soil is not entirely dependent upon its chemical composition. The factors of fertility are favourable climate, proper condition of tilth or mechanical condition, and thirdly the elements of plant food.

*By Mr. McMillan :*

Q. I suppose in your analyses you can only state the total amount of ingredients or plant food in the soil. You cannot speak as to the immediate fertility of the soil?—A. I shall be glad to speak on that subject in a minute or two.