

ANALYSES OF SAMPLES OF SOILS AND FERTILIZERS, &C., FOR FARMERS.

I shall now pass on to speak of the second division of my work, namely, the examination and reporting on samples sent in by farmers for analysis. This work is an ever increasing one. I suppose that this branch is becoming popular because our farmers are learning the usefulness of chemical information and also from the fact that no charge is made for our examinations. Of course, it is hardly necessary for me to add that no analyses are made, the results of which would benefit the individual only. Such should rightly be undertaken at private expense. The results of all analyses made, and the deductions from them, are of that character that when published they may serve to benefit a large portion of the farming community. During the past year 153 samples have in this way been received from farmers.

By the Chairman:

Q. 153 samples of soils?—A. No; not altogether. Of that number 36 were natural fertilizers, comprising muds, mucks, peat, wood ashes, marl and gypsum. At previous meetings of this committee I have discussed the value of these different materials for fertilizing purposes, and it will not therefore be necessary to speak as to their composition, on the present occasion. I may remind the committee that the examination of all commercial fertilizers sold in Canada is annually undertaken by the Inland Revenue Department, to which department the work is assigned by statute.

Of soils, 41 samples were sent in. These were not submitted to complete analysis, for such would neither be possible, owing to the very large amount of work it entails, nor, in the second place, would it be desirable or profitable. The history of the soils so sent in, as regards manuring and cropping, is uncertain, and the sampling is not taken with that care that insures the sample forwarded being thoroughly representative. We have therefore no data that would warrant a large expenditure of time on our part, for the results would be of very uncertain value. We, however, make a preliminary physical and chemical examination of such soils, and from the data so obtained, we are able to report to the sender, as to their general character, what crops they are best suited for, and what fertilizers and treatment will probably give the best results. In this way, we have been able, I think, to do a useful work, although it is not of that complete and detailed nature that characterizes the examination of soils, the history of which we know and which are typical examples of large areas. The information we have thus been enabled to give to farmers seems to be of value, and appreciated, since every year a larger number of samples are sent in. I have learned from many farmers that they have materially improved their soil by following out the suggestions given. In one case, as when the soil has been light and sandy, the advice has been to turn under a green crop, such as clover; in another instance, as when the soil has been a stiff clay, draining has been strongly recommended. In others, the treatment of muck soils with lime and wood ashes, the suitability of the soil sent for cereals and root crops, are amongst the more important features of the report. These, briefly, may serve as indicating the nature of the reports sent to farmers regarding their soils.

WELL WATERS.

During the past year, forty samples of farmers' water supplies have been analysed and reported on. The importance of pure water, I am glad to say, is fast becoming recognized by our agricultural population. Many are now seeking to preserve their water supplies from pollution. When all realize the risk in drinking impure water, when all are convinced that for dairy purposes pure water is indispensable to good results, then we may hope for an improvement of the water supplies on Canadian farms. We take every possible opportunity to speak against the pernicious habit of sinking wells in the barnyard and stables. We endeavour to emphasize the equal importance of good water with nutritious food. When farmers learn that there is direct scientific testimony establishing the outbreaks of epidemics as typhoid, diphtheria, scarlet fever and the like, with contaminated water, they will pay greater attention to this question of pure water.