

In closing this cursory review of our work in this branch of agricultural investigation, it only remains to say that our examination of Canadian cultivated soils points to certain economic methods of improvement that may be recommended to our farmers in order to enhance the productiveness of their fields.

These briefly are as follows :—

1 The more extensive growth of the legumes (peas, beans, clover, etc.). These plants alone have the ability to assimilate the free nitrogen of the air and thus are particularly valuable for "turning under" and also as fodder crops. Green manuring (the ploughing under of a green crop) with clover adds to the soil's store of fertility in nitrogen and humus, improving the soil both chemically and mechanically.

2 The application of wood ashes to supply the second essential element of plant food, viz: potash. Canadian wood ashes (in other words, Canadian soil fertility), though much undervalued at home, find a ready sale in the United States. Our farmers receive in exchange for their ashes but a tithe of their worth. Does not parting with them under such conditions seem like killing the goose that laid the golden egg? If wood ashes are not obtainable, muriate of potash or kainit (a potash salt mined in Stassfurt, Germany) should be used to supplement the barnyard manure.

Again, there are many of our soils and crops that would be benefited by an application of a soluble phosphate. Apatite or mineral phosphate of lime we have in Canada in abundance and also the raw materials for manufacturing the sulphuric acid to treat it with and make it soluble. It only remains for our farmers to intelligently use the superphosphate in order to increase the fertility of their fields and at the same time assist an industry that would be of great importance to the country.

3 Compared with the soils of other countries, many in Canada appear to be deficient in lime. This fact suggests that the judicious application of lime, marl or gypsum (at the same time supply other forms of plant food) would lead to good re-