

soil from fields upon which the legume has grown luxuriously can be procured and applied.

The manurial properties of clover and other legumes has been worked out in a long series of experiments and the results have been of inestimable value to Canadian agriculture. In this campaign we are again emphasizing the main facts brought out by this investigational work, with the object of inducing our farmers to grow more clover and alfalfa, both for the production of a highly nitrogenous stock feed and for the enrichment of their soils.

LIMING.

Closely associated with the subject of the successful growth of the legumes is the question of liming. Leguminous crops will not thrive on a sour soil or one deficient in lime. Some soils are naturally deficient in available lime, some have been rendered so by cropping. The presence of lime is an indication of fertility and productiveness. Its functions are many. It promotes nitrification by neutralizing acidity; it improves the tilth of both heavy and light soils and it furnishes plant food. A bulletin has been issued that deals fully with all the important phases of this important question and our farmers are urged to ascertain, as is possible by quite simple means, if their land is in need of this element.

Ground limestone is now being used on many farms as a soil ameliorant with excellent results and we believe its employment in Eastern Canada and British Columbia will very largely increase in the near future. Our experiments in many districts in Ontario, Quebec and the Maritime Provinces have shown that lime or ground limestone is needed and can be profitably employed for increasing crop production.

COMMERCIAL FERTILIZERS.

In all that has been said so far respecting the means of increasing crop production, the call has been, more particularly, for more careful, more thorough methods of farm and soil management and though these entail labour they do not necessarily involve the employment of extra labour, which of course would mean an additional cash outlay. The case with Commercial Fertilizers is different: they must be purchased and unfortunately their cost to-day is higher than in ante-bellum days. Their use involves a distinct and direct cash outlay and the farmer, in their employment, must be fairly confident, not merely of an increased yield but of a profitable return; the increase in yield must be more than sufficient to pay for the fertilizer. The hazard is, of course, always