chemists. Where these soils are being cultivated, the system of continuous cropping with wheat is in vogue and practically nothing is being put back into the soil. From what we have said to-night you will be aware that not only are such soils becoming poorer in available food constituents by the amounts removed yearly in the crops, but that much organic matter and nitrogen is necessarily oxidized and lost by the indispensable cultural operations. When a short time ago, in Portage la Prairie, one of our very best wheat areas, I was told by several careful and observant farmers that already a diminution in the yield, other than that which could be ascribed to climatic influences (for it was a more or less steady decrease), was to be observed on the older lands, that is, on those that had been consecutively cropped with wheat for 20 or 25 years. Thus it comes about that the farmers in many districts of the North-West are now recognizing the necessity of adopting some plan for the maintenance of soil fertility, and interested and encouraged by the results obtained through the use of clover in Eastern Canada, have already commonced a trial of this method.

If it behoves the Western farmer, who has tilled but for a quarter of a century one of the most fertile soils of the world, to pay attention to this matter of the restoration of the nitrogen, humus, and available mineral food, how much more important is this subject for the farmers of Eastern Canada, where for the most part the soil has been much longer tilled, and where originally it was not of that extreme richness as in Northwest? In my opinion the average yield in all our Eastern provinces would be materially raised by the more extension and regular growth of one of the legumes.

You must not imagine, from what I have said in this address, that there are any grounds for considering our cultivated soils and their productiveness as seriously impaired; such is not the case, save in a few localities in restricted areas. I do, however, say that in many parts of Canada we have, either through ignorance or carelessness, or both, practised a very foolish and irrational system of farming, one in which much has been taken out of the soil and little or nothing returned, a system which has necessarily resulted in diminished yields—the first and most serious step towards unprofitable farming. Since it is almost impossible to materially lower within a few years what I have termed the "total" stores of mineral plant food in the soil, it is evident that our one-sided system of farming has exhausted the land of those very small, but nevertheless most valuable supplies of soluble available constituents which go to nourish crops. It is to restore these economically, to add humus and nitrogen, that this method of manuring by the clover is so strongly advocated. I trust sufficient evidence has been brought forward to show that theory and practice alike justify us in recommending this system as one of the most effective, and certainly the cheapest, for soil restoration.

We have referred to our soils as a natural resource of great and permanent value. They are a resource which should increase rather than deteriorate in value as time goes on, and I have no doubt that such will be the case. Of the capabilities and possibilities in Canada we cannot form any adequate conception, for little more than one-tenth of our agricultural lands are as yet tilled. Thousands upon thousands of acres of fertile soil yet await the husbandman to yield their quota of wealth. We may be said to be only beginning farming, but nevertheless we have sufficient evidence to show that Canada is pre-eminently a food-producing country. It is all important, therefore, that no pains should be spared in the scientific investigation of agricultural problems and in the determination of information arising therefrom. Every year marks an advance, and the most encouraging sign of all is that our agricultural work is being more and more prosecuted on rational lines, a result no doubt of the fact that the scientific principles underlying the practice of agriculture are becoming more widely known. Of improved methods based on scientific truths that the Experimental Farm system has been instrumental in introducing, none give more promise of fruitful results than the one which I have brought before your attention this evening: The maintenance and increase of soil fertility through the growth of legumes.

LECTURES ON AGRICULTURE.

Some very striking object lessons as to the value of lectures have just been furnished by this neighborhood. During the past week or so, three of these lectures have been delivered at Stoneham, Laval and Valcartier respectively and on each