

Potash has not proved remunerative on heavy clay soils, but on many light loams it has given a good return, for encouraging the growth of clover, potatoes and leafy crops generally. Muck and peaty soils are improved by this element. No potassic fertilizer has proved more valuable than good hardwood ashes, and this is the chief home source of this element which we can now rely on, as the German potash salts since the war cannot be purchased save at prohibitive prices.

THE MARITIME PROVINCES AND QUEBEC.—By far the larger amount of our experimental work with fertilizers in recent years has been carried on in the Maritime provinces. It is quite evident that there is in these parts of the Dominion a larger and more lucrative field for fertilizers than in Ontario, not simply as we might suspect from poorer soils, but from the fact that the crops upon which they are used in these provinces are more particularly money or cash crops—potatoes, apples, etc. Upon such crops the prospect of a remunerative response is greatly enhanced, for the maximum gross returns are larger than, for instance, in grain growing. It is also probable that taken as a whole the seasonal conditions in the Maritime provinces are more favourable to the fuller use of the fertilizer by the crop, than in Ontario.

It is satisfactory to note that the deductions from our experiments at Ottawa, already stated, hold good in the main for Eastern Canada. Invariably the more lucrative response from fertilizers is on land rich or fairly rich in humus, the fertility of which is kept up by manure and the growing of clover. These means are indispensable for the profitable employment of fertilizers.

The largest profits have not always been obtained by what might be termed excessive applications of fertilizer, say 1,000 lbs. and over, but usually from a combination of manure with a moderate dressing of say 500 to 800 lbs. of a well-balanced complete fertilizer. These results have been confirmed at many points and in different seasons. It is quite true, however, that larger applications can be used with profit in the Maritime provinces and British Columbia than in Ontario. Potatoes are the principal crop to which the fertilizer is applied, the land being under a three or four year rotation.

Summing up this teaching with respect to fertilizers, we conclude that the exclusive use of fertilizers will neither keep up the fertility of the soil nor yield profitable returns; that it is on soils of medium rather than poor quality that a lucrative response from their employment is to be expected; that they can profitably be used to supplement the home source of fertility, farm manures; that the largest returns are not necessarily from the largest applications and, lastly, that it is on the money crop of the rotation, such as potatoes, that their application is most profitable.