

Commercial fertilizers cannot be depended upon profitably to maintain fertility. Their exclusive use is strongly discountenanced. They are no substitutes for manure, yet they may frequently be employed as supplemental to it with profit, more especially if the crop be a high-priced one, as potatoes. Their function in rational agriculture seems to be to raise the proportion of immediately available plant food. They are altogether too expensive to be used for the general building up of a soil. Their use at first should be experimental, for it is almost impossible to foretell what profit may result.

Nitrogen, phosphoric acid and potash are the three elements furnished by fertilizers. Fertilizer ingredients are readily purchasable and mixtures can be made without any expensive machine on the farm. By home mixing a saving of from 25 to 35 per cent may be effected, and this course is advised on grounds other than economy, for it puts the farmer in possession of information respecting the nature of the materials, their functions and the proportions most profitable to use, that will be of much value for his future guidance. The text of this bulletin enumerates the various fertilizer ingredients on the market.

A fertilizer containing all three elements has, in the majority of instances, proved the most profitable. Large dressings have not, as a rule, given as large a profit as small applications and the aim in experimenting with fertilizers should be to ascertain the minimum dressing for the largest return, or to put it otherwise, the maximum yield for the minimum expenditure. Profits rather than yields must be looked for.

The paragraphs relating to special nitrogenous, phosphatic and potassic fertilizers should be closely studied, for the information therein contained cannot well be further condensed. Particulars are there given which explain the nature and function of these and the amounts generally found profitable to apply are stated.