

Another class, termed Super-phosphates, consists of phosphatic guanos, (and sometimes perhaps bones,) a portion of whose phosphate of lime is said to be converted into Super-phosphate by the use of sulphuric acid. I have already expressed an opinion, (founded upon the experience of others, as well as my own,) in favor of using bones in an incipient state of putrefaction, in preference to treating them with sulphuric acid. (See chapter XI.)

The addition of this acid in *small proportions* to the phosphatic guanos, will be attended with the advantage of quickening their action. Although the name of super-phosphate of lime is applied, indicating that salt to be the predominating ingredient, but I believe that is seldom the fact, because of the cost of the acid. This is all very well, provided the farmer pays for no more super-phosphate than he receives.

A pure super-phosphate of lime consists of—

Phosphoric acid,	61.02
Lime,	23.73
Water, chemically combined,	15.25

From the nature of the materials used, it is not practicable to obtain the article, (*at a manure price,*) as pure as the above, which I have given for the purpose of comparison.

In addition to the two classes of fertilizers already noticed, there are numerous other compounds offered as fertilizers to the farmer. They are mostly designated by very long names, the mere enumeration of which would occupy too much space at this time.

As some of them are largely used by our farmers, I had designed to collect for analysis a number of samples of each kind, whether made amongst us or imported; but it was out of my power to carry the plan into effect, for want of a sufficient appropriation for assistance. To this time I have found it necessary to apply a large amount of my private funds to the expenses of executing the varied duties of my post.

A few could have been done, but in making selections of these, parties might chance to say that they were made through favoritism or invidiously, depending upon the result being favorable to the honesty of the maker or otherwise. These considerations, necessarily, have more force from the fact that the work, important as it is, has not been specifically made one of the duties of my office. I should, however, have felt so certain of its propriety, as not to have hesitated, if sufficient means had been supplied for the purpose.

That fertilizers can be, and are honestly prepared at prices within the reach of the farmer, I am fully satisfied; but the latter is liable to suffer from several causes. They may, in some instances, be honestly though unskillfully prepared in ignorance.