

In the country, when regularly thrown into pits, which should be annexed to every farm yard, from its small proportion it would be entirely divested of every thing repugnant, which serves in a great degree now to prevent its use.

The preservation and use of this kind of manure would in a few years produce a sufficient increase of the crops of the State to pay off all of its obligations; however trifling the amount on each homestead may be, yet when we multiply that amount by the number of those in the State, it will make a very large aggregate.

I am sure that I am not far from the truth in estimating the solid and fluid excrements of each individual to be worth at least \$7 per annum, estimating it by the same rule which would make Peruvian guano worth \$46 per ton. This would make the manure of the city of Baltimore alone annually worth more than one million of dollars. How much of this is lost—nay, worse than lost; how much of it serves to pollute the air, engendering disease and death, those can best judge who know what little attention is paid to this subject. The above are not mere speculations. They are founded on very careful calculations, based on facts collected and observed by many of the greatest philosophers in the annals of civilization.

BONE DUST, PHOSPHATE OF LIME, SUPERPHOSPHATE, BIPHOSPHATE OR DISSOLVED BONES.

The necessity of the chief elements of bones, phosphoric acid and lime, to the production of crops needs no proof, whether we examine the constituents of fertile soils, the crops cultivated for the support of men and animals, or the composition of men and animals themselves, which is from food furnished by the crops. In the present article I shall confine myself to the preparation and best mode of application of the phosphates, uniting as much brevity as possible, with explanations full enough for the good understanding of the subject.

The bones of all animals are composed mainly of phosphoric acid and lime, forming what is called phosphate of lime; besides these they contain a small proportion of phosphoric acid, in union with magnesia, phosphate of magnesia, carbonate of lime, soda and potash; the two last, and several other substances in very small proportions, of no practical value here. These are the mineral constituents. They contain, when fresh, about from 40 to 50 per cent. of organic matter, which is capable of affording ammonia by its decomposition. Bone dust as sold in the market usually contains from 60 to 70 per cent. of phosphate of lime. The drying, boiling and sometimes burning of the bones renders the quantity of mineral matter comparatively greater than is found in fresh bones. Besides in bones, combinations of phosphoric acid are