

men, these analyses are so elaborate, so complex, and clothed in terms so unknown to the mass of those who use it, as to be to them of but little value. Take, for instance, the following analysis of a sample furnished by Humboldt and analyzed by Fourcroy and Vauquelin.

Urate of Ammonia.....	9.0
Oxalate of Ammonia.....	10.6
Oxalate of Lime.....	7.0
Phosphate of Ammonia.....	6.0
Phosphate of Ammonia and Magnesia.....	2.6
Sulphate of Potash.....	5.5
Sulphate of Soda.....	3.3
Sal Ammoniac.....	4.2
Phosphate of Lime.....	14.3
Clay and Sand.....	4.7
Water and Organic matters.....	32.3

Here is an analysis, doubtless perfectly correct, but of what value is its complexity in an Agricultural point of view. Here are words which many intelligent men have never seen before, and which they can find in no dictionary.

Again: Some analyses which have been published combine together several different substances of different values, and thus no one can tell from them the precise composition of the article, nor how much it is worth. Thus we have, for instance, 10 per cent. "organic matter and salts of ammonia," without specifying how much is organic matter, how much salts of ammonia, and what salts of ammonia they are. The different acids unite with different proportions of ammonia to form salts, and we cannot know how much ammonia is present unless the particular salts be separately specified, although ammonia is, as I shall hereafter show, the chief valuable constituent in Peruvian Guano. To obviate these objections, and to place in a clear light the agricultural value of Guano, I have always made analyses to show the value, in an agricultural point of view, of the different specimens, by showing the quantity of the several valuable constituents—those things to which Guano owes its value, for we all know that it is due not to its name, nor to any hidden or mystical quality in it, but to those substances which plants require for food, and which must be present in soils before they can be productive. These are—

First—Ammonia.

Secondly—Phosphates, (combinations of phosphoric acid, with lime, magnesia, potash or soda.)

To these, principally to the first, almost entirely to the two, does Guano owe its value, and we can assign a money value to each, and thus estimate the value of any particular quantity by the aggregate value of the different substances which make up that