

little immediate effect as manures. The nitrogen of blood and flesh is converted into ammonia with so much ease, that it may be considered almost as available for the purpose of a manure as that which is contained in ammoniacal salts.

Attempts have been made to fix the money value of the ammonia and the phosphates in manures, and thus to enable us from the results of analysis, to estimate the value of any fertilizer containing these elements. This was I believe first suggested a few years since, by an eminent agricultural chemist of Saxony, Dr. Stöckhardt, and has been adopted by the scientific agriculturists of Great-Britain, France, and the United States. These values vary of course very much for different countries; but I shall avail myself of the calculations made by Prof. S. W. Johnson of New Haven, Connecticut, which are based on the prices of manures in the United States in 1857. In order to fix the value of phosphoric acid, in its insoluble combinations, he has taken the market prices of Columbian guano, and the refuse bone-ash of the sugar refiners, which contain respectively about 40 and 32 per cent of phosphoric acid, and from this he deduces as a mean $4\frac{1}{2}$ cents the pound as the value of phosphoric acid when present in the form of phosphate of lime. This would give \$1.44 as the value of 100 pounds of bone-ash, and 1.60 for the same amount of guano, while they were sold for \$30 and \$35 the ton.

The value of soluble phosphoric acid has been fixed by Dr. Voelker in England and by Stockhardt in Saxony, at $12\frac{1}{2}$ cents the pound. This evaluation is based upon the market price of the commercial super-phosphates of lime. Mr Way of the Royal Agricultural Society, however, estimates, the value of phosphoric acid in its soluble combination at only $10\frac{1}{2}$ cents the pound; and Mr Johnson, although adopting the higher price, regards it as above the true value.

In order to fix the real value of ammonia, Prof. Johnson deducts from the price of Peruvian guano, at \$65 the ton, the value of phosphoric acid it contains and this arrives at 14 cents the pound for the price of the available ammonia present. This kind of guano, however, now commands a price considerably above that which serves for the basis of the above calculation; and both Voelker and Stockhardt fix the value of ammonia at 20 cents the pound. The price of potash as a manure is estimated by Mr. Johnson at 4 cents the pound; but this alkali rarely enters to any considerable extent into any concentrated manures, and may therefore be neglected in estimates of their value.

AN ENUMERATION OF THE PRINCIPAL MAMMALS, BIRDS, REPTILES AND FISHES OF THE OTTAWA VALLEY.

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MAMMALS.

<i>Scientific Name.</i>	<i>English Synonym.</i>	<i>Remarks.</i>
<i>Cervus Virginianus.</i>	Common Deer.	Abundant.
<i>Cervus Canadensis.</i>	Wapite.	Scarce.
<i>Cervus Tarandus.</i>	Caribou.	Scarce.
<i>Alces Malchis.</i>	Elk or Moose.	Scarce.
<i>Ursus Americanus.</i>	Black Deer.	Plentiful.
<i>Ursus Lotor.</i>	Raccoon.	Plentiful.