with muriate of ammonia, the crop was worse than where the muriate of ammonia was applied alone; where gypsum was applied with guano, the crop was only better by six cwt. in the acre than where none was applied, which may have been caused by the vicinity of a drain. We may, therefore, I think, fairly conclude, that gypsum is no manure for turnips, whatever it may be for clover and other crops. I confess, I am much puzzled by this result, as from an analysis of the subsoil of the field, by the Messrs. Blunt, of Shrewsbury, it appears that it contains merely a trace of sulphate of lime, or gypsum; from which I should, until these experiments were tried, have supposed that gypsum would have had a powerful effect. Muriate of ammonia does not appear to answer well in the quantity used, and if larger quantities were applied it would be too expensive for the farmer.

| No. of Exp. | Description of Manure. | Cost per acre. £ | s. | d. | Weight of crop per acre tons | cwt | Measure per acre bushels. | Cost per bushel. d. |
|---|---|---|---|---|---|---|---|---|
| I. | 165lbs. of muriate of ammonia, 220lbs. of gypsum. | 1 | 10 | 11 | 7 | 1½ | 154 | 2½ |
| II. | 330lbs of guano. | 1 | 13 | 0 | 15 | 1 | 308 | 1¼ |
| III. | 165lbs. of muriate of ammonia 330lbs of guano. | 1 | 6 | 6 | 8 | 16 | 192½ | 1¾ |
| IV. | 220lbs. of gypsum. 330lbs of guano. | 1 | 17 | 5 | 15 | 14¾ | 346½ | 1¼ |
| V. | 11 bushels of wood ashes, at 1s per bushel. | 2 | 4 | 0 | 17 | 7¾ | 423½ | 1¼ |
| VI. | 165lbs of muriate of ammonia. 11 bushels of wood ashes. | 1 | 17 | 6 | 14 | 19¾ | 385 | 1¾ |
| VII. | 1,322 gallons of liquid manure (consisting of urine and soap-suds.) | | ..... | | 11 | 9½ | 269 | — |
| VIII. | 66lbs. of bones. 8¼ qts., or 33lbs. of sulphuric acid. 550 gallons of water. | 0 | 8 | 5½ | 14 | 6 | 346½ | 0¾ |
| IX. | 484lbs. of bone-dust. | 1 | 1 | 7½ | 14 | 19¾ | 308 | 0¾ |

"In the above calculation, fractional parts are not included." The following is an analysis of the subsoil. I was told by a former tenant of the field that it would not grow turnips; it was, however, drained shortly before the turnips were sown.

"One hundred parts of the soil were found to contain—

| | |
|---|---|
| Water | 11 parts. |
| Silica (or sand) | 70 " |
| Alumina (or clay) | 15 " |
| Red oxide of iron | 1½ " |
| Carbonate of lime | 1½ " |
| (Loss) | 1 " |
| A trace of sulphate of lime, in weight not appreciable | .... |
| | 100 |

The proportion of Silica is that yielded by the soil after the largest stones or pebbles had been removed from it. The seed was sown on the 17th of May, 1843, and the turnips pulled and weighed on the 22nd of November. The plants all came up together; nor was there any perceptible difference in their appearance on the 27th of May. On the 14th of June, No. II. appeared to take the lead; I., VII., VIII., looking the worst, and being more backward than the others; on the 20th of June they were horse and hand-hoed, Nos. IX., X., VIII., IV., V., were equal in appearance to No. II; on the 21st of July No. V. looked best, and No. I worst of all." Mr. Slaney then proceeded to call the attention of the Council to the comparative cost of the different manures tried by Mr. Eyton, and stated in the table just read to them; from which it appeared that the bones and ulphuric acid cost only one farthing per bushel on the turnips grown, whilst the other manures cost from three to ten times as much. The soil on which they were raised was a tolerably light loam, and, as Mr. Eyton had stated, had been recently drained. The bones used were ground into powder, and were the fine siftings from collections of bones. This bone powder being put into an earthenware vessel, a small quantity of water was first poured over it, and the sulphuric acid then added: when the whole mixture was stirred with a stick until the bone-powder was entirely dissolved, and the solution being diluted with more water was ready for use. It was applied to the land as liquid manure, either by means of a common watering-pan, or the distributing-trough of a liquid manure cart, care being taken that the liquid should fall on the rows of turnips just sown. This process, Mr. Slaney understood, was repeated after the plants came up; and in submitting this brief statement of Mr. Eyton's experiments to the Council, he trusted that the interesting results obtained might stimulate other Members of the Society to extend the inquiry to other artificial manures with a view to the determination of their economical application and practical value. Mr. Davenport, of Capesthorne, near Congleton, Cheshire, fully corroborated the statement made by Mr. Slaney, in reference to the mode in which the mixture of sulphuric acid and bone-dust should be conducted; and as some danger to the inexperienced operator was to be apprehended from a different mode of proceeding, it was desirable that great care should be taken not only to effect the solution of the bones, but also to add the sulphuric acid in so cautious a manner as to prevent its accidental ejectment from the vessel in consequence of the violence of chemical action. With regard to the abstract value of sulphuric acid and bones as a manure, he adduced the opinion of Mr. Burness, of Manchester, a pupil of Professor Liebig, and who had been delivering a lecture or two in Cheshire on agricultural chemistry, as unfavourable to its exclusive use; for although it was no doubt a powerful and excellent restorer of land, it could not be considered as a permanent and efficient manure for rotation of crops, unless combined with other substances. Mr. Davenport preferred bone manure in a dry, concrete form, to its being in the state of liquid solution; and had found a mixture of half a ton of bone powder and two hundred weight of guano answer extremely well. The African guano just imported was offered at 3l. per ton less in price than the Peruvian, but he understood that it contained a correspondingly greater amount of water in its composition. Mr. Townshend Mainwaring, M. P., of Marchiviel Hall, near Wrexhrm, Denbigshire, stated, that with him the application of the sulphuric acid and bones had been attended with decided injury rather than advantage to his crops: a result, he had since learned, occasioned probably by the bones employed being left in fragments of too large a size, and consequently not in a state to be at once subject to the chemical action of the sulphuric acid as their solvent; his land having thus not only lost the advantage of the nutriment contained in the bones, but received on the contrary the injury of a strong, corrosive, and unneutralized acid. Mr. John Raymond Barker, of Fairford Park, Gloucestershire, communicated the results of two experiments he tried last year on the effects of ashes, both singly and mixed with guano, on the growth of Swedish turnips. The first experiment was made by applying a mixture of 40 bushels of coal ashes and 20 bushels of wood ashes, per acre, to a bad piece of heavy land, sown with Skirving's purple-top Swedes drilled in rows 18 inches apart. The turnips on being cleared of their tops and tails were weighed, and found to give an average of 39 tons 15 cwt. to the acre. The other experiment was made in a field of good light land, manured with 25 bushels of coal-ashes and one cwt. of guano per acre, and sown with Skirving's purple-top, in rows 27 inches apart. In this experiment the turnips were much larger than in the former, and Mr. Barker expressed his regret that the result had not been weighed, as the crop was, without exception, the finest he had ever witnessed, the turnips being of excellent quality and of immense size.

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"Sam," said a lady to a milk boy, "I guess from the looks of your milk, that your mother put dirty water in it." "No she did n't nuther—I seed her draw it clean out of the well, 'fore she put it in."