

formed me that they have experienced most excellent effects from it when used in this way, many of which I have witnessed.— There is another valuable effect of this lime not possessed by any other, which is its tendency to destroy insects.

I have been informed of many applications of gas lime, always with beneficial effects when applied properly. The supply of it in our market does not more than meet the demand.

Shell Marl is another most fruitful source for the application of lime to soils, and moreover a most valuable one. In my previous Reports to the House of Delegates, I have spoken very fully of its best mode of application, the quantity to be used and indeed every thing of practical value connected with it. The analyses of many marls not published in my Reports have been given to the interested, to the whole people of the State, I omit their republication. For much of my advice I have been indebted to information given personally by, and from the printed publications of the Hon. Edmund Ruffin, of Va., whose works on the subject of Calcareous Manures, especially marl, contain more valuable original truths than any one, or all written on these subjects. Persons living in the tide water districts of our country, will find them to be most valuable sources of information.

MISCELLANEOUS MANURES.

Gypsum—Common Salt.—We comprise these two manures under one head; not that they are similar either in their composition or mode of action, but because there is no very appropriate class to which they can be referred; and they act more as *mediums* than as direct nutriment.

Gypsum in its pure state is composed as follows:

Lime.....	33 per cent.
Sulphuric acid.....	46 “
Water.....	21 “

Experience has determined that the crops on which it should be used are those only which have a large leafy surface, such as clover, beans, peas cabbage and tobacco, and is best applied to clover, peas, beans, cabbage and tobacco when their leaves first begin to expand; on corn it should be used just when the *silk* begins to form. On wheat, timothy, oats, &c., its beneficial action is not so clearly manifest as on the crops which I first mentioned.

Very much has been said with regard to the theory, i. e., the philosophical explanation of the way, or *ways*, in which plaster acts. On this subject I can but say that the beneficial influence of plaster on broad leaf plants must be explained in some other