



To the Editor of The British American Cultivator

ON THE COMPARATIVE NATURE OF GRAY AND WHITE PLASTER AS MANURE.

Mr. Editor:—

To those who have experienced the beneficial effect of this material, as a cheap manure, the result of experiments calculated to show the respective merits of the two varieties of plaster, may not be unacceptable to your practical readers generally.

It is a remarkable fact, that the beds of plaster near Paris, are chiefly of the grey variety, but having occasional seams of white, some of which are crystalline and others radiated, similar to the stelaclites found in ancient mines; but the plaster at the beds near Seneca is almost entirely of the white variety.

It is difficult to see much, if any difference in the first crops succeeding the application, but in the second crops the Paris plaster has the decided advantage, especially on all soils, in which the calcareous ingredients is deficient, which is the case in the greater part of the oak plains. This fact may be explained from the circumstance, that the Paris plaster contains a considerable portion of carbonate of lime, in the shape of indurated marl, while the Seneca plaster is purely sulphate of lime. The experiment may be satisfactorily tried, by filling two wine glasses about three parts full with diluted nitric acid, in the proportion of three parts of water and one of acid; or if this be not at hand, the best distilled vinegar will show the experiment, put into each glass about a spoonful of pulverized or ground plaster, the effervescence and consequent expansion in the Paris plaster will immediately flow over the top of the glass, while but little effervescence could be seen in the Seneca plaster. It may be unnecessary to state that the cause of this is the superior affinity in the nitric acid for lime, and consequently the carbonic acid is expelled by it.

A great deal has been written by scientific men, intending to show the chemical agency of plaster, but without controverting any of those ingenious theories, there are certain practical facts, which afford amusing criteria, and in which any one may in the proper seasons satisfy himself by going over a field in the morning or evening, which has been partly pastured and partly not; when vegetation is in full vigour he may observe large dew-drops in the grass or grain, where plaster has been sown, but the grass or grain on other parts of the field will be quite destitute of dew or moisture; this fact seems to be a convincing proof that affinity for moisture is one cause of its fertilizing power.

Another way in which plaster exerts a beneficial agency, is in correcting the acidity which exists more or less in all soils in this part of Canada, especially on the oak plains, as before alluded to, and I find that repeated dressings of plaster will have the same effect in destroying the wood sorrel oxalis acotosa, as the application of chalk in England, in removing the very same weed. The practice of chalking in the south of England, within the past fifteen or twenty years, has been carried to much greater extent than ever before known, and the effect on some soils is similar to that of plaster here. The pungent acid, in some soils, before being chalked, is such as to be destruc-

tive to sheep; but this will not be surprising, when it is known that the oxalic acid of the shops, is found in the common wood sorrel oxalis acotosa, or acotosalla, analogous to chalking, is the practice of marling in Somersetshire and the western counties, where they have no chalk. The application of marl on their pastures will produce great crops of white trefoil, precisely the same herbage as the application of plaster produces on the oak plains in Upper Canada. It seems therefore conclusive evidence, that the chemical agency of both are similar;— Providence in Her own kind provision for our wants has given abundant stores of these minerals, and it is a remarkable fact, that when most needed they are in general to be obtained with the greatest facility. The Somerset and Devonshire plaster is more compact than either of our varieties—I have some specimens for inspection.

With regard to the indications in searching for plaster, its geological position, &c., experience has suggested certain general practical observations, which shall be communicated hereafter.

In the mean time,

I remain your obd't serv't,

H. MOYLE.

SHEEP WALK, near Brantford,
December 10th, 1842.

To the Editor of The British American Cultivator.

GUELPH, 21st Dec., 1842.

DEAR SIR,

The second exhibition of stock, by the Agricultural Society of this District, took place in a beautiful meadow, immediately adjoining this town, on the 11th October last, and excited the greatest possible interest, not only amongst the Farmers, but amongst the gentlemen, merchants and other inhabitants of the District.—The day was exceedingly auspicious, and the quantity of stock exhibited was immense. Long before the hour appointed for the commencement of the exhibition of the stock, by the judges, the show ground was thronged by anxious spectators, the most knowing of whom were kindly pointing out to their uninitiated friends the merits and demerits of the animals placed in review before them. The judges, (who were very experienced graziers, from the District of Gore, and to whom the Agricultural Society of this District are under great obligations for their valuable services,) commenced their very arduous duty precisely at noon, and it is from notes, with which they were kind enough to favour me, that I make the following report. The arrangements for the accommodation of the stock were excellent, and reflected great credit upon the managing committee. The stallions exhibited, appeared to be hardy and useful animals. The mares were something of the same character as the stallions, not handsome, but tolerably adapted to the circumstances of the District. There was a large lot of horses, exhibited as hackneys, and their appearance, (which was certainly pretty,) excited great and general interest: they were most of them nice tits, but those possessing action were deficient in point of strength, and those possessing strength were deficient in point of action; in fact, an experienced horseman, would have considered that there was scarcely a thorough good hackney in the lot. Mr. Howitt produced about a dozen head of his Durham cattle, which would cut a good figure in any place, but in this District they are unrivalled. Several young bulls were exhibited, which had received a drop or two of Durham blood into their veins, and it was admitted

on all hands to have been a great advantage to them. A very great number of cows were exhibited, and they were of a quality so good as to do their owners infinite credit. The two years old heifers were good, and the yearling ones particularly fine. The one produced by Mr. Thring was very much admired. The four years old steers were very good ones. There were some very fine Leicester sheep on the ground, but they were not so numerous as last year, in consequence of the whole of Mr. Jackson's splendid flock having been withdrawn from competition. The South Downs were not very numerous, but they were good. There were about twenty pens of grade Leicesters exhibited, and they were of very superior quality; the judges had much difficulty in deciding which were the best. Many of the ewes, (having raised lambs,) would weigh from twenty six to twenty eight pounds per quarter. The hogs were all of the Yorkshire breed, and were highly commended by the judges and by the spectators. At the conclusion of the exhibition, about eighty gentlemen and farmers partook of an excellent dinner at the Union Hotel, roast Beef and Plum Pudding, being the most prominent dishes. In the unavoidable absence of the President, the chair was taken and most efficiently filled by Thomas Saunders, Esquire.

Alexander Dingwell Fordyce, Esq., acting as Croupier, some very excellent and appropriate speeches were made by the Chairman, by the Hon'ble Adam Ferguson, and by other gentlemen, and the evening passed in the most agreeable manner. I hope to be able in the course of a few days to send you an advertisement of an exhibition of grain, roots, &c., to be held by the Agricultural Society of this District, in January next, by which you will perceive that the Canada Company have placed a sum of money, in the hands of the Directors of the Society, enabling them to give the sum of forty dollars, to the growers of the first and second best samples of fall wheat. This generous conduct of the Canada Company, entitles them to the warmest acknowledgments, not only of this particular Society but of the agriculturists throughout the Province. The above report would have been made to you several weeks ago, had I not been effectually prevented from writing, by a severe illness, from which I have not yet perfectly recovered. Here follows a list of premiums.

I am, Sir,

Your obedient Serv't,

J. HARLAND.

HORSES.

Best Stallion, John Mitchells...	2 10 0
Second do Thos. Nichols.....	2 0 0
Best Mare, James Wright,.....	2 10 0
Second best do, Alex. Drysdale..	1 5 0
Third best do, James Cowan....	0 15 0
Best Hackney, John Harland....	1 5 0
Best Colt Foal, George Armstrong	1 0 0
Best Filly, do, Alex. Blyth.....	1 0 0

HORNED CATTLE.

Best imported Bull, John Howitt..	2 10 0
Second best do, Richard Jackson..	1 5 0
Best do. Cow, John Howitt.....	2 10 0
Best do. do, Richard Jackson....	1 5 0
Best Bull, not thorough bred, Jan. Hudson.....	2 0 0
Second best do, not do, Joseph Parkinson, Esq.....	1 0 0
Best Cow, not do, R. Jackson....	1 10 0
Second best do, not do, Joseph Parkinson, Esq.....	1 0 0
Third best do, not do, Matthew Sweetenham.....	0 10 0