qualities are mixed up together, and packed in unsuitable casks. There is no branch of our husbandry so defective, and consequently unprofitable, as the management of our butter, and there is no cause it should be so but neglect or want of skill. The farmers are not, however, liable to all the discredit of bad quality of butter, as those who buy it from them in small quantities, and pack it without any regard to assorting properly, deserve a large proportion of the blame. We trust this defect will soon be remedied, and that Canadian butter will establish that high character for itself, which it may and ought to have.—January 29.

The analysis of Professor Johnston, as given in the Highland Journal, for March, 1845, shews that 100 lbs. of turnips, grown with fresh dung, contains 4 ounces of fat; those grown with guano, furnish only 24 ounces, or 100 lbs. of dung would lay on  $1\frac{1}{2}$  lbs. of live weight, while the same weight of the guano turnips would add to the live weight only 1 lb., or one-third less. On the other hand, the guano grown roots were the best for young stock. These intimationa, given us by science, are confirmed by some experiments made by Lord Blantyre's directions, which show that while a lot of beasts, in consuming a ton of turnips grown with guano, put on 213 lbs. of live weight; in eating the same quantity of turnips raised by dung, they increased 361 lbs. How important practically, then, are these chemical investigations?

The following remarks by the Editor of the Mark-Lane Express, are worthy of the attention of all who would desire to promote Agricultural improvements in Canada:---

In seeking the readiest and most effective mode of promoting agricultural improvement, we have always been of opinion that it will be found in the cultivation of the minds of those upon whom the management of the soil depends, whether owner or occupier. We have ever given a willing support to all measures calculated to diffuse information amongst the adult cultivators of the soil, or to afford an efficient and comprehensive system of education for youth intending to pursue farming as their occupation. Although we anticipate ultimately very great advantages from the establishment of agricultural schools and colleges, we have always entertained the opinion that most important and immediately beneficial results might be obtained by the use in our ordinary schools of simple and well arranged elementary works upon those branches of science, a certain knowledge of which is essential to make an accomplished farmer. The primary difficulty which interposed was the want of such elementary works; the next, the means of inducing the proprietors of schools to use them. Although many such works on different sciences have been published, still we have scarcely met with one which come up to our views of what a purely elementary work ought to be. Most authors aim at something too learned and overloaded with technical terms, fitter for youths advanced in their education than for mere beginners.

It is a remarkable circumstance that Agricultural books have never been considered necessary for the reading or study of our youth at public or private schools, and this circumstance will account for the low estimation in which Agriculture has been held by educated youth. Indeed education has been looked upon as unnecessary for the occupation of a farmer. It is no wonder that such an occupation would have no attraction for young men educated in total ignorance of it. There is not certainly, in the whole course of studies, so interesting or delightful a subject as the science and art of Agriculture, and we have no doubt that youth in general would find it so if their studies were directed in that channel. Youth are not to blame for not reading Agricultural works, because they have never had the opportunity; until very recently, we suppose a book on Agriculture could not be found in any school in Canada. It is most extraordinary that, hitherto, so little attention should have been given to the instruction of youth in the principal business of this and all other countries.

In England, it is computed that an acre of wheat, producing 28 bushels, should yield 1100 lbs. of fine flour, and 344 best loaves of bread, of 4 lbs. each. Be it observed, that the English imperial bushel is about one gallon less in size than the Canadian minot. A quarter of wheat, weighing 480 lbs., gives 314 lbs. of fine flour, besides seconds. What proportion does the yield of wheat in Canada bear to that of England, in flour and bread ?