

Substitutes for Guano.

It is well known that the British farmer for the last quarter of a century has been largely dependent on Guano in sustaining or increasing the fertility of the soil, and consequently the augmented crops which characterise modern husbandry. This article, as yet, has been but partially employed by Canadian farmers;—where however, it has been tried,—more particularly in the raising of root crops, the results, we believe, have been generally satisfactory. The present high prices of good varieties of guano will operate as a check to its employment in this country as a manure for general purposes, and barn-yard dung and gypsum must continue to constitute the principal materials for dressing the land. The following facts condensed from a prize report of Mr. John Dove, in a recent number of the Highland Society's Transactions, will be found instructing and suggestive to our readers.

Mr. Dove comes to the conclusion from extended and carefully conducted experiments, instituted for a special purpose, that the supply of guano is not absolutely necessary in Britain for keeping up the fertility of the soil, as there are other substances at command by which it can be equally well done, and that it becomes a mere question of relative cost.—*On turnips*,—a crop to which by far the largest quantity of artificial manure is applied, superphosphate and sulphate of ammonia are quite equal to most kinds of guano;—on *wheat*, sulphate of ammonia has been found superior to it; on *oats*, there is not much difference between guano and nitrate of soda; and on *grass*, nitrate of soda is better. Mr. Dove is of opinion that if it were possible to get a larger importation of the nitrate of soda, at a cheaper rate, it would be one of the greatest-boons that could be rendered to British agriculture. The supply of it is said to be unlimited, and the cost to consist chiefly in the labor of preparing and transporting it to the sea coast in those countries where nature produces it. If the means of cheapening its preparation and transit could be effected, its expense would be greatly lessened, a reduction in the price of guano must soon follow, or the demand for it would quickly fall off. A few years since we employed the nitrate of soda on a small scale

for experimental purposes, and in most instances with marked benefit to the crop. Grain that looked yellow and sickly in the beginning of June was in a marvellously short time changed to a swarthy green, and its growth pushed forward vigorously; which was also the case with grass. On flowers and garden vegetables its effects were in many cases in a very short time, most striking, and the crop materially augmented. As a farm fertilizes, however, the nitrates of potash and soda, from their high price, cannot, we think, be profitably employed in Canada. Mr. Dove is of opinion that these and other materials, such as rape, woollen rags, superphosphates, &c., will for the future keep down the demand for guano in Britain, where its price has of late years considerably increased.

Agricultural and Veterinary Instruction.

It is probably known to most of our readers that a gentleman from the Edinburgh Veterinary School, has recently come to Canada at the instigation, and under the patronage of the Board of Agriculture. One of the principal objects contemplated is the ultimate formation of a Veterinary School for this Province. An object of such importance can only be realised by the careful adoption of preparatory and progressive measures, and as an initiative, it is proposed to devote four or five weeks this winter to the giving of popular instruction to all such young men in the country who may be disposed to avail themselves of it, in scientific and practical Agriculture, including the breeding and management of farm animals;—their anatomy, physiology, diseases, &c. This course will probably commence the beginning of February. Professor Buckland, assisted by the Professors of Chemistry, Geology and Natural History, in University College, will conduct the Agricultural, and Mr. Andrew Smith, the Veterinary department of the course. The main object aimed at will be impart as much useful information to young men of ordinary powers of comprehension, engaged in farming pursuits, as the limited time will allow, and to put them into a way of subsequently prosecuting these studies by themselves. As the only expense incidental to the proposed course of instruction will be a few text-books