

## ON MANURING AND STEEPING OF SEEDS.

The following very able article appeared in a late number of the *Farmers' Cabinet*. But few of the Canadian farmers are prepared to make many experiments, especially those of a doubtful nature; but the modes for preparing seeds, here described, are within the reach of many, and may be practiced no doubt with great advantage. The mixtures might be varied to suit the convenience of the experimenter, and others might be employed, such as the phosphate, and sulphate of lime, charcoal, guano, and many others that might be mentioned, and if this plan was adopted by even a few of our farmers, most important results would ultimately accrue to the cause of agricultural improvement. There can scarcely be a doubt but that the system of steeping seed grain in some powerful stimulating manure will, ere long, be practiced pretty generally, for it is obvious that many soils have been robbed of the true elements of production by injudicious cultivation; and the cheapest way that those substances can be restored to the soil, for the use of the crop is, by preparing the seed with such solutions as may be deficient in the soil. Agricultural chemistry most beautifully points out the necessity of supplying the land with such food as is found in the crop when in a state of perfect growth; this can only be known by analyzation and practical experiment. The latter method of ascertaining the description of manure, and the amount required for the various crops and for different soils, is the one which the practical farmer must employ in the present infant state of agricultural science. In experimenting in agriculture, it is the wisest course to do so upon a small scale, and by this method most important dis-

coveries may be made without entailing loss. The diseases and casualties more or less subject to the crops cultivated in this country may almost wholly be prevented, if those who cultivate the soil would consult their own interests by studying into "the why and the wherefore" of the causes and effects which influence their operations.

Another German pamphlet on this subject has lately appeared from the pen of a Mr. Vietor, an apothecary at Neidenholm, in Hesse Darmstadt, under the title of "The Manuring of Seeds, or a simple and cheap cultivation of the soil by the artificial manuring of seed, by which, at the same time, the rust and other diseases of the corn-crops are prevented, practically tried for five years, and proved on a large scale." By C. L. Vietor. This author describes his methods, and is so far more worthy of the attention of the practical man. Before detailing these methods, however, I shall insert a few of his preliminary observations.

As the principle upon which the manuring of the seeds ought to be preferred to that of the soil, he remarks "that the manure can never be so equally distributed through the soil that the due proportion of food shall be given to each seed or plant; and that, besides, before the plant comes to require it, much of the organic matter of the manure has become decomposed and lost, and that even the inorganic matter is liable to assume forms of combination, in which it can with difficulty be made available to the nourishment of the growing plant."

These disadvantages, he says, may be avoided by manuring the seeds themselves which we wish to grow, while, at the same time, the following advantages will attend the adoption of this method:

"1. The same crop may be repeated on the same soil, though already exhausted, or even in any usually unfruitful soil.

"2. We can manure the seeds with those special substances only which it is not likely to find in the soil, or of which it has been exhausted by previous crops."

This is an advantage which is possessed by all saline and mineral manures, and is one of those benefits which will appear more clearly and strikingly to the practical man as he becomes more familiar with the natural wants of the crops he wishes to raise, and with the kind of substances which are present in his soils and in the manures, such as farm yard manure, which he usually employs in preparing them for the seed.

"3. As the rotation of crops is rendered necessary chiefly by the abstraction of saline substances from the soil, it may be rendered unnecessary by adding again these substances, in such a way as to be within the reach of the seeds only. Thus, by steeping the seeds in calammoniack, and drying