will do to set about the middle of July. Turnips are very subject to be eaten by the black flea. A good remedy to steep the seed one night in train oil. This will greatly promote germination, and the growth of the young plants.

EAST OXFORD FARMERS' ASSOCIATION.

To the Editor of the Canadian Agriculturist.

Sir,—It affords me much pleasure to transmit to you the report of our last meeting, which gave great satisfaction. It must ever be deeply interesting to the farmer to investigate the results of different systems of cropping, to ascertain how the largest amount of valuable produce may be raised, without detoriorating the soil. The proceedings were opened with the following observations from our President, Mr. Alexander.

I am, Sir,

Your obedt. servt.,

L. C. TEEPLE,

Secretary.

Woodstock, East Oxford,
March 8th, 1853.

The natural fertility of the soil throughout this county is so great—particularly those lands which have been recently reclaimed from the forest, as shown by the great abundance of every kind of farm produce, and by the rapidly improving circumstances of the population—that many have never yet thought of the importance of the subject named for discussion at this meeting. They have not yet felt the necessity for adopting improved systems of rotation, with a view to the permanent productiveness of their land. Some are necessitated to crop heavily for immediate wants; perfectly conscious, perhaps, that they are drawing on their capital. Others are not, to the full extent, aware of the results of severe and indiscriminate cropping; not having yet exhausted those rich elements which it has been the work of ages to accumulate. However that may be, a very slight reference to the statistical returns of older districts in this Province, but especially in the Northern States, will show that good husbandry is indispensable everywhere. The complaints in those quarters of diminishing scales of produce have been very general, according to Mr. Hind, while in some of the Eastern States, where wheat was once largely grown, its culture has greatly decreased. It is vastly important that such matters should be dwelt upon publicly, involving, as they do deeply, the consideration of the means whereby we may hope, as an agricultural people, to attain to a position of solid and permanent prosperity. We have all witnessed within our own limited experience the extraordinary difference in the results of good and bad farming. Every one knows the disadvantages attending the cultivation of impoverished lands. The same tillage is required, the same expenses for seed, harvesting and thrashing are incurred, while the crops will hardly pay for labour expended. The soil is, in fact, the *treasury* of the farmer's wealth—the stores which are found therein may be husbanded with care, to minister abundantly to all the wants of man with the return of the seasons, or they may be greatly wasted and dispersed in a short period of time. It is for the purpose of investigating this important matter that we are now assembled. I have been requested to make a few introductory observations, illustrating some of the facts which science has disclosed to us, but I must be permitted to say that I feel deeply my inability to do justice to a subject so comprehensive in its range; and that I will only venture to touch upon one or two of the most prominent points bearing upon the question at issue.

It will first be necessary that I should bring before your notice what has long been established by chemical investigation: that the constituent parts of all matter, whether of the soil which we cultivate, of all animals and soils existing, or of the atmosphere by which we are surrounded, (for all these stand in immediate relation to each other), may be divided into two classes of substances or bodies. We find, for instance, with regard to wood, that it is combustible, and that under the action of fire nine-tenths of it, as of all vegetable substances, will go off in the form of smoke, and become part of the atmosphere; but a certain part is indestructible, and remains. A grand division has thus been established. That part which burns away is termed the *organic* part of the plant; the part which remains, or the ash, the *inorganic*. But to give a more correct and definite meaning of the terms, the organic may be said to embrace all that part of the plant which is the product of life and living organs. The atmosphere may be considered the great *reservoir* of organic food, acting upon and combining with the inorganic elements to produce fertility of soil; while it is constituted to nourish and sustain all vegetable growth and developement. But we come to consider the nature of those *inorganic* substances in the soil which are indestructible, but which we find wonderfully interwoven with the organic in the works of creation. The *inorganic* elements are sulphur, phosphorus, potash, soda, lime, magnesia, iron, silica, chlorine and iodine. Their presence in the soil is indispensable to the growth of the grains and every kind of crop. What we term fertility is the existence of *organic* and *inorganic* matter in such relative proportions as produce the most perfect vegetable growth, the most perfect grain and roots. Those elements constitute the food of plants—they enter into and become the constituent parts of whatever is