

field the past season. Both grass and clover was more vigorous, green and lively within the top-dressed square, and just as visible all around was the exhausted crop, which said as audibly as grass could say, in its declining state, that it had received no such assistance from this individual fertilizer.

On a hill-side not at all renowned for its wealthy properties in soil, we planted the Davis Seedlings and Jenny Lind potatoes in clear coal ashes, half a shovel full in a hill. Below, on equally as good ground, we planted the same kinds of potatoes in compost manure, and the coal ashes, single handed, turned out the largest, best, fairest and most numerous quantity of potatoes. In reality, they were the best we raised on the farm. Almost side by side, in compost manure, our potatoes were somewhat infected with rot; in the ashes they were all healthy and sound almost to a potatoe.

In kindling fires, it is true, we use shavings and a little light wood, but the quantity I consider almost too insignificant to take into the account.

These experiments convince us that as a fertilizer, anthracite coal ashes possess the life and energy to produce the above effects on common crops. Hence, whatever theoretical lecturers or writers may present to undervalue the better qualities of the article, while it continues to improve quantities and qualities of grass, and give us sounder and larger crops of potatoes, we conclude to give it an honorable standing among the general agents which have long held undisputed station in the farmer's compost.

South Gorton, Oct., 1859.

WM. LEONARD.

OFFICIAL NOTICES.

Dr Forrester will be greatly obliged if the Secretaries of the different Agricultural Societies will forward to him all the information they can relative to the state of Agriculture within their respective bounds in addition to what they have already done, especially every thing appertaining to the crops of last year. Next year, it is hoped, that a regular series of queries on blank sheets will be issued, by which complete and accurate statistics on the Agriculture of the Province may be published every year, and by which our progressive advancement in this respect may be seen. This year a Report must be presented to the Legislature, and it is in every way desirable that that Report be as full as possible. Every effort ought to be made, that the original Agricultural Grant to the counties be restored. Were the different Agricultural Societies to take up this subject, and to forward petitions to the Legislature to this effect, we have little doubt that the object would be gained.

ARTICLES ON RETURNS TO CIRCULAR.

We return to our theme. The next query in the circular is this—"Is there anything like general attention paid to the Rotation of Crops?" There is no small diversity in the replies given to this query. Were we to go into details and attempt to classify the Returns, on this point, we would say, that out of about 40, there are 10 report that the rotation of crops is pretty generally attended to, 15 partially, and the other 15, that it is not attended to at all. This state of things does not take us by surprise. The want of a systematic rotation of crops in Nova Scotia, and indeed in Lower Canada as well as in all the Lower Provinces, lies at the root of all our defects in the matter of Agriculture. The long, severe winters present something like a plausible reason for taking crops of hay year after year in succession from the same field, and that oftentimes without any top-dressing. The uncertainty of the markets, too, sometimes presents temptations to our Farmers to grow some particular crop to an excess, to the all but total neglect of all others, such, for instance, as has taken place in King's county for the last few years in reference to the potato. The great demand for that esculent, and the high price it brought in the American market, have prompted not a few to plant the

same root in the same field for a succession of years—not without manuring, it is true, but rendering it altogether impossible for them to carry out anything like a systematic course in the management of their Farms. And, in addition to all these reasons, there is, perhaps, a majority of our Farmers who really know little or nothing about the immense advantages arising from an adherence to system in the rotation of crops. We blame them not for this. Their ancestors, the first colonists in the settlement, betook themselves to the clearing of the ground and the cultivation of the soil without any previous training, and ended without any scientific knowledge of Agriculture at all; and as their forefathers firmed so do they, their circumstances having in a great measure shut them out from those opportunities of information which have been opened to others in older settled districts. And, even when they have been favoured with such opportunities, there is a stereotyping in Agricultural pursuits, arising from a long continued practice, which nothing but the most palpable and sensible demonstration, which nothing but ocular observation, will supplant.

Now there are two grand classes of reasons in favour of the rotation of cropping on which we would make a few remarks. The first is that different plants draw from the soil different sorts of food, so that one plant will grow freely in a soil in which another will scarcely grow, or, if it grow at all, will prove exceedingly unproductive and unprofitable. This is a great law or principle taught us by nature itself, and constitutes one of the main reasons for the geographical distribution of plants. Why does one species of grass grow in the meadow, another on the level plateau, and another on the Alpine summit? Simply because they find in these respective localities the food most congenial to their nature. You may plant the finest hardwood trees in the fields occupied for a century or more by those of the identical species—before the desolating scourge of the forest fire passed over them—and what will be the result? If they grow at all, they will be stunted and scraggy. And the reason plainly is, that the bygone trees have absorbed all the nutriment congenial to their nature. Plant other kinds of trees, such as are classed amongst softwood, and these will shoot forth with utmost luxuriance. And exactly so is it with ground and crops under cultivation. The turnip, for example, takes from the soil a large quantity of one kind of nutritious matter—wheat a large quantity of a different nutritious matter, and hay a large quantity of nutritious matter different from both turnips and wheat; therefore, though a field may give a sufficiency of that kind of nutriment which is principally required by one crop, yet, if another of the same kind immediately follows, there will be a deficiency for it; but, if a different crop succeeds, there will be found enough of all the materials it needs fully to manure it; and when a third crop of another description follows, which requires nourishment different from either which have preceded it, the soil may be in a condition to yield a good crop of the last also. But as every crop takes away more or less of all the nutrition which the soil contains, if a succession of crops (no matter how different the kinds which succeed each other may be) are gathered and carried off the land without the occasional addition of manures, they will be found gradually to diminish in quantity till they reach a point, when they will scarcely pay the expense of cultivation. And this is actually the state of matters, in too many instances, throughout this Province.

The other class of reasons which go to support the necessity of the adoption of a thorough system of the rotation of crops, is that from the variety of crops the occasional failure of one is not so much felt, seeing that the others furnish subsistence sufficiently without it. This other class of reasons might furnish abundant scope for illustration. Whatever be the science and the skill of the Farmer in the cultivation of the soil, and in the supplying of his various crops with suitable food, much of the success of his efforts depends upon the blessing of heaven. Changes in climate and other casualties often occur which blast the fairest prospects of the Farmer regarding certain crops. Over these, of course, he