

sowing nearly the whole extent of his farm every year, has been carrying on a continual scourging of its soil, as there is no root or green crops, raised for the purpose of feeding, and the straw, as well as grain, in many instances, is sold; there is very little manure made on the farms—the results of such a course may easily be seen to be ruinous. If this system is necessary in any business it is particularly so in farming. A want of it amongst us, I think, is one of the greatest drawbacks on the development of the Agricultural resources of Eastern Canada. Now I conceive it to be the interest of all, and your especial province, to lay before the farmers of Lower Canada, some plan by which they might, by their own labour and industry, restore and maintain the fertility of their own exhausted farms, and as I fear there is little other capital amongst us, this end can only be attained by directing this labour into proper channels. With a view to this end I humbly submit to you a miniature plan of a small farm, with the rotation of crops, that has been strictly acted upon for the last ten years; you will perceive that the rotation comprehends the whole extent of the arable land on the farm, and of course it is all brought into and kept in a clean and productive condition; and I hesitate not to affirm that this system if carefully acted upon, would, in six years, more than treble the annual agricultural products of the country. The rotation is as follows:—No. 1, green crops or fallow: No. 2, wheat or barley: No. 3, hay: No. 4, pasture: No. 5, pasture: No. 6, oats and peas; and round again; the drawing represents the actual condition of the farm in the summer of 1849; any person looking upon it could scarcely miss the tracks. Some of the practical results of this system, with the comparative value of some of the crops, may perhaps, prove useful or interesting to some of the readers of the Journal; the cultivation of root or green crops, for the purpose of feeding, may be considered the material foundation of agricultural improvement, and for the two following very obvious reasons:—first, root or green crops cannot be raised at all, but with good tillage and the complete destruction of weeds; secondly, all the broad leaved kinds are not great exhausters of the soil, and may be considered as a kind of reservoir, by which the

fertilizing elements of the atmosphere are collected and kept in the hands of the farmer, to be applied to the land at his discretion. I shall not enter on farther detail at present, except to show the results of the system on field No. 1. In the year 1842, I for the first time, (after French Canadian culture,) had this field ploughed, and sown, the one half with peas and the other with oats, but the land was so completely foul and exhausted, that the peas crop was not worth thrashing, the oats scarcely paid for reaping and thrashing; the year following it was cultivated under green crops and fallow, the whole manure made on the farm being applied to it. It has yielded good crops all round the course; 1849 brought it into the first stage of a second course, and has been cultivated under the following crops, the comparative value of which, I found, by measuring the land and weighing the produce, to be as follows, per arpent:—

	With Tops.			Without Tops.		
	tons.	cwts.	lbs.	tons.	cwts.	lbs.
Mangel wurzel, long red.	24	5	80	18	12	36
Carrots, red Albrongham	18	2	56	13	5	30
Turnips, white globe. . .	8	4	32	5	0	0
Swedish turnips	10	19	27	6	5	100
Potatoes, early white. . .				4	6	0

Horse beans, a failure, little more than twice the seed. Indian corn, cannot say exactly, as it is not all shelled yet, but I think between 50 and 60 minots per arpent.

I may here notice that I sowed a short red carrot, for which I have not got a name, but it was labeled large white Belgium; I sowed several rows of these through a field of red Albrongham for the purpose of proving the difference of their products; I raised the same length of two rows which grew side by side, and weighed them tops and roots, and found as follows: long 357 lbs, short 297 lbs, giving a balance of 50 lb. in favour of long without tops. I found of long 227 lbs., of short 230, giving a balance of 3 lb. in favour of short. I do not think I lost any thing by sowing the short carrot, but seedsmen ought to be cautioned against selling seeds, that are not true to their kind, or of a different kind to that which is ordered. I shall not attempt to give the money value of the above mentioned crops, as I believe the best market they can be brought to is to convert them into some exportable article on the farm, except where manure is easily got. I am not chemist enough to know the exact quantity of nutriment contained in the several