

Winter Barley.

The following is the communication of Mr. Chapman, of Ottawa, to the Bureau of Agriculture, referred to in a recent number, on this subject:

My attention was drawn to a remarkable plant of Barley (a single one) growing in a Cottage Garden in England, in the Autumn of 1851, and I brought it with me to Canada in the Fall of that year. The amount of ear in that plant was 56, and on examination they proved to be 5 rowed, very strong in the straw, and averaged nearly 70 grains each. In the Spring 1852, I sowed a part of it, and although it produced an unprecedented amount of fodder, it never brought an ear. In the Fall of the same year I sowed some more, and was much gratified to find in the Spring a fine healthy crop, and on July 11th it was ripe, and cut, and as good in quality as the parent plant. Since then I have been trying it in all the forms that suggested themselves to me—as to its hardiness—the best time for sowing it—the proper quantity of seed—soil best adapted to it—and whether it varied in its habit of soil or productiveness—each year sowing being of the previous year's yield. And during all that time it never failed once when sown on land fitting for it, and at the proper time; but when sown late on sand or where water laid on it in the Spring, it has been killed, but when sown on pretty stiff land, well tilled, in fact as it should be for Fall Wheat, any time from the middle of August until about the 10th September, the Winter has never injured it, and it retained all the characteristics of the first plant. It ripens ten days in advance of Fall Wheat, and its vigour of growth is wonderful, for from its manner of stooling, the average of ears from each plant is not less than 50, containing at least 60 grains; a far greater number being produced where the plants had more room. I have until this fall sown it in drills 15 inches apart, and the seeds 3 inches in the drills; but this year I have sown some at 10, 12 and 15 inches, with the seeds 3 inches as before, which will enable me to ascertain if an increase of seed produces an increase of yield. I commenced to sow on the 9th of August and continued at frequent intervals until the 9th September. By adopting the last mentioned distances, the exact amount sown was 6 lbs. to the acre, or rather less than a gallon.

I shall here inform you that I am not a Farmer, but a Gardener, and the quantities grown have been merely experimental, and I can therefore only give you the proportionate yield per acre, which I find on ordinary Wheat Land to be a minimum of 60

with a maximum exceeding 80. Grass has never been tried with it, but as it is sown so thin upon the land, it appears to me likely that it would be sufficiently strong to escape being smothered by the luxuriant growth of the other; for on the 6th October the growth of that sown on the 9th of August was as level as a piece of baize, 15 inches thick, of which I sent specimens, taken from the middle of the land, to Professor Buckland, at that date. The straw is fully proportioned to the weight of the ears, and I have never seen it laid. The fodder is of the best description; the sample I send you is not an average one, as there are a few scattering ears, the crop being thrashed in the Fall, but they may serve to guide your judgment of its properties. It is proved to be of first quality for matting, and it has another excellent property to which I beg to draw your attention. It has a most remarkable thin skin and a rice shaped grain, which will greatly increase its value to those who manipulate it into pot and pearl barley. A gentleman largely engaged in that manufacture, pointed out to me the advantage from the improved appearance of the article, by leaving it when manufactured nearly as long as an ordinary grain in its natural state, which would in all probability induce a very extensive business. Since I have grown it, I have not seen a single plant, ear or grain injured by any insect or blight, and so far as my observation goes, it is the safest and the most profitable grain crop that can be grown in Canada, within, of course, certain limits. I mean that every prudent Farmer should grow it where the Wheat crop is so uncertain. The effect it might have, if grown for one season over a large contiguous area, in arresting the Wheat Fly, every intelligent Farmer will form his opinion upon. Some persons have raised an objection to drilling it, as being costly both in time and money. The method I adopted was this. I took a piece of wood about 6 feet long, 6 inches wide, 2 inches thick, and bored that with an auger at 10, 12 and 15 inches distance, into which I put as many pins as the distances gave me, the narrowest being 7, to this I put a pair of train shafts and a pair of handles, and a couple of pins through the three where they intersected, and the whole affair was done. With a boy to lead the horse and a man to hold the drill, it is surprising how soon and how easily an acre may be marked out. One of the barrow shaped sowing machines may then be used, and a man can go over an acre with ease to himself in 4 hours and deposit the grain with almost mathematical precision. The cost of such a machine is \$4, and can be used for all root crops by merely setting the distributor according to