

suit his own purpose, until by continued improvements and successive developments they not only greatly exceed unaided nature, but sometimes become altogether monstrous. The cabbage which in a state of nature has a tough and slender stem and weighs perhaps one cunee; by judicious culture becomes succulent, and changes to a heart or cluster, often weighing from 20 to 51 lbs.: one of that weight having been exhibited in England last year. Wheat, barley, and oats in a wild state are thin and meagre, and of little or no value; by cultivation they become large and plump, and, perhaps, the most important elements of subsistence for both man and beast.

Trees and stems too of all kinds become liable to great changes. The native of the mountain when transplanted in the valley grows with greater rapidity, but the timber becomes softer and less durable; whilst the tree of the valley, when removed to the mountain becomes of slower growth and more stunted form but the timber is tougher and more lasting. I might go on to enumerate the various fruits whose properties are changed by cultivation both in quality, size, and colour, so as to render them almost beyond recognition; such as the plum proceeding from the slope, the apple from the crab—the peach and nectarine from the almond—the orange and lemon from the lime—the garden cherry from the wild one, &c.; but I have enumerated quite sufficient examples to show very clearly the vast advantage to be derived by efficient cultivation, and the beautiful and merciful adaptation of the nature of the vegetable kingdom to the bountiful supply of the wants and growing requirements, as well as the pleasures and gratifications of civilized man, if he only exert his industry and skill to cultivate.

Perhaps it would be well now to state what constitutes efficient cultivation of the soil, taking it in an AGRICULTURAL point of view, in the enlarged meaning of that word.

As the famous authoress of the *Cookery Book*, Meg Dodds, in describing how to cook a hare, begins with, "First catch the hare," so perhaps I may say, First get the farm, and let it be such a one as is best suited to the means of purchasing and stocking; and to the amount of capital and labour which can be brought to bear upon it. The larger the extent of cleared land, the smaller proportionate capital will it require:—Thus a farm of 150 acres cleared may be managed (after having secured the freehold) with a capital of 20s. per acre; whilst a farm of 50 acres will require 30s. per acre, supposing both farmers to be proprietors of the soil, and *working* men. If not working men a larger capital will be required, and the returns will be much less. There are very few farms in Canada that would support an idle would be gentleman.

Having procured the farm, (always supposing it to be partially cleared,) perhaps the first and most important of all agricultural knowledge is that of a proper rotation of crops, suited to the soils under cultivation.

ROTATION OF CROPS.

I set out with an assertion that may be new to many, but which I believe is perfectly correct and borne out by experience, that naked summer fallows are, in a general way, extremely injurious to the soil and ought not to be tolerated, except where there are stumps or stones to be removed, for doing which there is not time enough except during the summer months. The exposure of the soil to the heat of the summer sun weakens its vital powers and exhausts its richest properties. If light land the exhalation renders it still lighter; if heavy land it extracts vegetable juices and leaves it less nutritious than it would have been if protected from the sun. In the best agricultural countries in Britain the naked fallow is abandoned and the land is kept clean by a constant succession of drilled and heavy smothering crops. For this purpose the five course husbandry is very generally followed, (perhaps more so than the four course, which is also very much adopted) under the five course husbandry one fifth of the farm is each year occupied as hereunder described:—1st, Drilled crop, Turnips or Potatoes; 2nd, Barley; 3rd, Clover meadow; 4th Pasture; 5th, Wheat, or Beans; varied occasionally to 4th, Wheat, 5th, Oats; though it is not approved to sow two grain crops in succession. This beautiful system keeps the land always in prime condition, and no one crop being too often repeated, the properties of the soil necessary for its growth are not exhausted, nor too large demands made upon the particular properties requisite for the growth of particular crops. Perhaps in Canada it would be impossible to follow this rotation because we have not the artificial manures, such as bone dust, oil cake, guano, &c., to cultivate so large a proportion of drilled crops; but we ought to approximate to it as much as possible, and at all events endeavour to avoid naked fallows except where absolutely necessary. The expense of naked fallows unaccompanied for one year by any return—the two years' rent or interest of purchase money which is just the same, the extra plowings and diggings, which effect no more in the way of cleaning than a good smothering crop, all these are such heavy drawbacks from the profits of the wheat crop, (costing—independent of manuring, which would have to be done at any rate—at least 25s. per acre,) that every farmer should avoid naked summer fallowing as much as possible. To avoid the necessity for it, the manure for the drilled crop might be got out in autumn and plowed down as soon as it is drawn out, and the land will