

Carrots on New Land.

Many people would like to grow one or two acres of carrots, if it were not for the difficulty of singling them out and constantly weeding the rows; *between the rows* no difficulty exists, for horse hoeing can be as easily applied as to any other crop. I have long since stopped clearing up new land; but many people have not, and to them I now address myself. Some years since I had determined to grow some carrots, and as weeding and thinning the rows was specially objectionable to me on account of so much stooping, I determined to try new land for them. I argued that turnips always produced well under these circumstances, and if I could get sufficient clay soil, mixed with the leaf mould, to prevent the carrot seed perishing by the hot sun *after germination*, this plan would answer well. An ingenious friend constructed a cultivator—we called it the forest cultivator—which worked to perfection amongst stumps and roots, even on quite new land, mixing up the soil to about 6 inches deep with the leaf mould, and preparing a beautiful seed bed. Moreover, I thought with the help of this implement I could get in the carrots much earlier than turnips could, with safety from the fly, be sown; and also I was well aware that carrots would do well if sown in almost peat muck, whereas turnips would often fail under such treatment. I had such a piece of black ash swale, well drained by surface drains, but still naturally wet and low. In the fall, when this land was well prepared and dry, I passed the cultivator over it once each way, the last crossing the first, and it then resembled a black bed of ashes. The seed was sown about the week in May, and soon came up, and showed an even plant, about 6 inches apart each way, although some were much closer. My neighbours who saw them so close said they would never come to anything; but I had some experience in thick sown carrots on such land, and allowed them to remain as they were. At harvest the crop was very good, and quite easily gathered in. Having sown the White Belgian variety of seed, the roots in many cases projected four inches out of the earth, and seemed rather to evince a disinclination to go deeper into it than about 8 inches. The roots individually were not large, but the crop as a whole was heavy, and quite satisfied me of the advisability of growing carrots on new land, especially where this cultivator is used. Without it I am afraid the young seed, when first germinating, might perish.

As to thick or thin sowing of carrots, I never tried any kind so thick as I have the "Early Horn" variety. These I have sown so thick for many years that the rows of carrots were nearly solid, and each root touching the other so closely that you could scarcely put your finger between them. When first drilled in, the rows are almost a foot apart,

but at harvest they have so spread out sideways that each row of solid carrots is often 4 to 6 inches wide, leaving only about 6 inches of space *between the roots*. The roots thus grown are short and small, about as large as a kidney fluke or "lady's finger" potato; but I have weighed from good land and in favourable spots 1,800 bushels (of 50 lbs. each) to the acre. We never use any tools to dig these short carrots; grasping a handful of the greens in the hands is sufficient to draw them from the earth. An ordinary rake will often do well. If the greens are fed off with sheep *first*, the carrots are ready to house or pit as soon as pulled or raked out of the ground.

Many years since, in the township of King, I saw a farmer pulling up a field of white Belgian carrots, grown in fat, black, mucky soil; very deep it was, I recollect, and plenty of carrots were 18 inches long, and as large as a man's wrist, and many much larger. They grew, like mine, about 6 to 7 inches out of the earth, and were so clean and free from small fibrous roots that the owner often pulled up ten at a time, one bunch in each hand as he went along. The heaps (green and all) where the crop was heaviest, looked like hay-cocks almost. I should think there must have been upwards of 1,000 bushels an acre; but I think, nevertheless, a larger crop of early horn can be raised than any other variety.

C.

Influence of Potato Seed.

A correspondent inquires—"What is your opinion on the influence of cut and uncut potatoes for seed, and on small and large ones? There are many contradictory statements in the papers?"

The contradictory statements are owing to the varying circumstances under which the experiments are made, without a sufficient repetition of them. Conclusions are drawn from too few tests. A single experiment will not do for the basis of a theory.

If the soil is sufficiently moist when potatoes are planted, cutting is an advantage. It reduces the number of stalks, gives fewer new potatoes, and, as a necessary consequence, allows those few to grow larger and develop themselves better than when they are numerous in the hill, resulting from many stalks from all the eyes of a whole potato. But even here there is a considerable difference with different varieties—some potatoes growing thicker and more numerous in the hill than others.

If the soil and season happen to be quite dry, the cut pieces dry up rapidly, lessen the supply of food to the young and growing sprouts, and the plants are enfeebled. In such cases the crop will often succeed better by planting whole potatoes, the skin of which being nearly impervious to moisture, keeps them plump for a long time. If potatoes are planted early in the spring, when the soil is nearly always quite moist, and remains so for some weeks, there can be no objection to

cutting potatoes into pieces before planting, and the crop will be likely to be better and the tubers more uniformly large.

There is much diversity of opinion relative to the value of small potatoes. They are not usually so successful as large ones. But the wrong reason is assigned. It is said that "like te 'ds to produce like," and that, therefore, small potatoes tend to produce small ones. This would be true if true seed from flowers, instead of portions of the root or stem, were employed. We might as well say that grafts cut from a large tree would produce larger fruit than others, or that planting large trees from the nursery rows would give orchard trees of greater size. The truth is, the tubers of potatoes are essentially underground stems, and the eyes are the buds. We could no more expect to get larger trees by using large buds than larger potatoes by planting large tubers. Nevertheless, we find by experiment that large potatoes give the heaviest crops. What is the reason? Simply this, that the large tubers give a greater supply of nutriment to the young sprouts, just in the same way that in a moist soil they will do better than in dry hot ground. In repeated trials with potatoes not over an inch long, cut into as many pieces as those four inches long, no perceptible difference was observed in the size of the tubers produced from both; but on careful weighing, the large seed was found to yield about one-eighth more on an average. This difference was undoubtedly owing to the earlier and more vigorous start from the large seed, and to the continued supplies of nourishment, and not from any inherent change, as of "like producing like." The planting of the potatoes in these experiments was done in fine mellow, moist soil, and early in the season; had it been late, or in a dry or parched soil, it is probable that the small potatoes would have yielded nothing.

It is well known that some varieties deteriorate in successive years in particular soils, so that the magnitude of the crop is gradually diminished. It would be interesting to determine by a long series of trials whether the constitutional weakness is affected by selecting the largest seed only, on the one hand, and small seed from poor crops on the other. Several years would be required to determine such questions, under different circumstances, side by side.—*Cultivator*.

Thorough Culture.

A correspondent of the Germantown *Telegraph* writes:—

"Thorough culture and high manuring are essential to profitable farming, and this is the right mode of farming. If ten acres of land can be made to produce twenty tons of hay, is it not better than to cultivate twenty acres for the same amount? It is less labour to get twenty tons of hay from ten than twenty acres.

"Supposing you are growing 25 bushels of shelled corn per acre. You can, by applying more manure, with thorough cultivation, get 50 bushels of corn. This might be increased to 75 or 100 bushels per acre. What is there to prevent? You can easily test this. Select a small piece of land in your corn-field; plough it a few inches deeper than heretofore, manure the ground