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THE CARROT.

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W. C. ST. JOHN.

AN ESSAY ON THE CULTIVATION OF CARROTS.

The soil for carrots should be a deep, rich loam, free from weeds, if you have it; if not select a piece of land with a dry subsoil; if very weedy, summer fallow the year previous and pulverize the soil as deeply as possible. If the land is tolerably clear, or if it is impracticable to summer fallow it, as soon as you have removed the previous crop give it a heavy coating of manure as thoroughly decomposed as you can get it, and plough it under; after it has remained long enough for the weed seeds that are near the surface to sprout, give it a harrowing, and give it a cultivating or harrowing once or twice more during the autumn, to get as many seeds started as possible. If the land is at all heavy or wet, it will be beneficial to plough it in deep ridges just before the ground freezes up, and leave it in that state all winter. If the soil is a light dry loam the ridging in the fall may be dispensed with; in the spring, as soon as the land is dry enough to work nicely, level it with the cultivator or harrow, plough deeply, harrow it well, plough it in ridges about 24 to 30 inches apart, and it is ready for sowing. The objects to be aimed at in preparing the soil is to get it pulverized as deeply and thoroughly as possible, and get the manure well incorporated with the soil.

The seed should be sown immediately after the land is ridged, and as early in the spring as it is possible to get the land in good condition. As carrot seed takes a long time to germinate, and the seeds are very apt to get the start of the young plants, it will be advantageous to tie the seed in a bag, and soak it in warm water for some time; it may be soaked two days without injury. Then spread it in a warm place to dry for a few hours. It will expedite the sowing to mix the seed with a large proportion of clean, dry sand. It is always best to sow a liberal amount of seed, as the plants can be easily thinned out, and sometimes the seed will not all grow. If the seed is good, three lbs. to the acre is sufficient, but perhaps it would be as well to sow four to be sure.

When the carrots are high enough to be seen easily, thin them out from four to six inches apart. Some people advocate thinning them from nine to ten inches; while others leave them very close together, but my experience teaches me that we can raise a larger tonnage per acre at a medium distance than by leaving them very thick or having them very thin. Of course we must be governed some by the nature of the soil; if the land is strong and the carrots will grow large, they should be thinned farther apart than if the land is poor. The best kind to sow I think is the long orange carrot, although there are some white varieties of which you can raise a much larger crop, but the orange will more than make up in quality what it lacks in quantity.

In cultivating carrots the land should be kept perfectly clean from weeds, though not stirred to any great depth. For if the land has been properly prepared before the seed is sown, it will not require any further cultivating to pulverize the soil, and the small fibrous roots of the carrots will completely fill the ground between the rows and deep cultivation will destroy these roots and retard the growth of the carrots. The carrots should be harvested before there are very heavy frosts in the fall. If the land is light and white carrots are sown, which will grow a good deal above ground, and consequently, pull easily, a good plan to harvest them is to pull the carrots and lay them down on the side of the ridge in a row, with the necks just on top of the ridge; lay them down so that you will have two rows of carrots together and two rows of tops; then take an old piece of a hoe blade or some thin steel plate, take a stick about as long as a walking cane and saw a curve into one end, into which wedge the hoe blade or plate of steel. Grind it sharp, then take it into your hand, walk along and top your carrots; with an instrument like this a person can top as many carrots as three persons with knives.

But if you have the orange carrots, which grow almost entirely below the ground, the best plan is to plough a furrow from the row of carrots as close to the carrots as you can plow, pull them, throw them in heaps and top with a knife.

To store carrots you want a cool, dry, well ventilated cellar. If stored in large quantities in a damp, close cellar, they are apt to heat and grow; but if the cellar is well ventilated and is only just warm enough to keep them from freezing, there is no trouble in keeping them.

These suggestions are respectfully offered.  
YOUNG FARMER.  
Castlebar, March, 1873.

TO KILL RUST IN SEED WHEAT.

French farmers generally employ Glauber's salt along with quick lime to kill rust, &c., in seed wheat. About three ounces of the salt is dissolved in one quart of water, the grain after being steeped is rolled in lime—2 lbs. of the latter per each bushel of grain. Common salt often takes the place of Glauber's, and is invariably added to the seed-steep, when composed of blue vitriol.

Sulkey Horse Rakes.

These useful labor-saving implements are rapidly gaining favor. Many farmers who looked on these implements as superfluous three years ago will purchase them this year. We have introduced but very few into this section as yet, but we predict that in this county alone ten times as many more will be sold the present season than have ever been sold in one year previous.—There are many kinds of Sulkey Horse Rakes; some are more difficult to work than others, and some do not work as efficiently as others, but every salesman sells the best, no matter of what pattern, make or material the rake may be.

We cannot positively inform you which is the best rake or who is the best maker, but at the last Exhibition we were more impressed with Mr. Howell's rake, which appeared to us to be deserving of commendation in its adapting itself to uneven ground, and the advantages of being arranged so as to attach a grass seed sower and plaster sower to the frame.

Mr. Howell makes no other implement. He believes in specialities; that one man can generally succeed better when his mind is confined to one purpose. To show the rapid increase in demand there is for his rakes, he has this season sold 50 of them to go to New Brunswick, and 50 more are sold to go to Manitoba.

We intend to keep this rake in stock this season. One may be seen at the Agricultural Emporium, together with the Grass-seed Sower, and Plaster Sower, at any time; if any one has a better one we should be pleased to find it out.

Agricultural.

ENGLISH FARMING AND AMERICAN.

Mr. Wall, in an address to the farmers of New Jersey, alluded to the fact that in England, in less than a century, the production of wheat had risen from 16,000,000 to 100,000,000 bushels. This enormous increase he attributes to systematic attention to all the requirements of good farming; to the skill and exactness with which all the operations are performed; to their careful selection of the best varieties of seed, and to the extensive and good use of their barnyard manure. Nothing is left to casualty or chance. No expectations are indulged in that an unusually favorable season will atone for short comings or neglect. He alluded to the business like liberality of the English farmers in restoring to the earth, by means of purchased manures, the elements of fertility exhausted by cultivation, and stated that in 1837, the first year in which bones came into general use as a fertilizer, the foreign bones imported were valued at the custom house at \$1,500,000, since which time it is estimated that the amount paid for imported bones alone amounted to \$150,000,000. Since 1841 upward of 500,000 tons of guano have been used.

Mr. Wall believes that the English farmer's rotation of root and grain crops comes nearly to perfection, and that the care which had been bestowed on root cultivation had been the salvation of England.

It is certainly true that the culture of root crops has been the salvation of English agriculture. The cultivation of these crops may as truly be the means of improving the soil in our Eastern States. We had once hoped that the manufacture of beet sugar would enable Western farmers to avail themselves of this root as a fallow crop, but we fear that this will prove not to be the case, just yet; perhaps time may give us cheaper labor by which it may be done. Fortunately, we have Indian corn, which enables our farmers to clean their land in an admirable manner, if properly attended to. Still, it can never take the place of tap rooted plants. The turnip crop will probably never be available in the West, even if we could afford to make it take the place of corn as a feeding crop, for the reason that our hot summers are not suited to the plant.

If beet sugar, however, could be made to pay the cost of cultivation and manufacture, the enhanced production of the wheat and barley with which it would be rotated, would ensure profits. We shall still look with interest to the future of beet sugar in the West. The great difficulty with our farmers is that they have neglected the breeding and

feeding of stock to eat up the coarse grains in which our prairie soils are so fertile. Thus we might establish a rotation in which clover would play an important part, and with its deep searching tap roots bring up the hidden fertility of the soil for the use of wheat and barley.

We reiterate that it is in diversified agriculture that our farmers must find the true solution of many of their troubles. It takes time, however, to work out agricultural problems, and as soon as we know just what classes of plants are suited to our climate and condition, we shall have solved one of the most important questions of the day.

TWO AND FOUR-ROWED BARLEY.

A glance at the market quotations will show that a difference of from ten to fifteen cents per bushel in price exists between the two and the four-rowed varieties of barley. Farmers generally prefer to raise the two-rowed, as it yields best and ripens at a more favorable time. For some years past the four-rowed invariably sells the quickest and for higher prices. The important thing for barley growers to know is, whether these conditions are likely to continue, and which variety will probably be most profitable to grow. Malsters prefer four-rowed barley because it is better adapted to make light ales, and especially lager beer, than the two-rowed. It gives a brighter and clearer color to the liquor than does the two-rowed barley, and this quality is highly essential, in making lager especially.

For making heavy or dark-colored ales the two-rowed is better. In this country light ales and lager are far more popular and are consumed more extensively than heavy and dark ales—hence there is greater demand for the variety of barley which will best produce them.

In England the reverse is true, heavy and dark beer being most in demand, therefore the two-rowed barley sells much the best there. In view of these facts it is not probable that two-rowed barley will usually bring as high a price or sell as readily as the four-rowed, and it is wise for the grower to heed the demands of the market. It is more profitable always to raise the higher-priced grain, provided the aggregate sum it brings per acre does not fall below the lower priced, as it costs less to handle the lesser number of bushels than the greater.

THE DAIRY FARM.

The dairy farm is the home of the cow. Our study should be to make that home suited in its arrangements to the peculiar habits, inclinations and fancy. For any pains we may take for her health and comfort we will be amply repaid by an increased flow of milk. The cow is emphatically a domestic animal, naturally quiet, loving ease and rest when satisfied with food and drink. It is essential that this peculiarity of her nature be consulted in the arrangement of our pastures and watering-places.

PASTURES.

Cows should not only have a variety, but such a combination of grasses as will afford them some one or more kinds in maturity or approaching maturity continuously during as long a season as possible. This may be done by learning the nature of different grasses and sowing those which will mature in different parts of the season as we may wish.

If pastures be so arranged that they can be provided with shade, cows will show their appreciation of them by an appropriation of their cooling effects during a few hours of the sultry midsummer days.

DEEP PLOUGHING.

Some months since we wrote pretty fully on the subject of deep ploughing, the advantages of which we had proved for many years. We have reason to know that some of our readers resolved to profit by our remarks, being convinced that deeper ploughing and more thorough cultivation were absolutely necessary unless in exceptional cases, to the production of crops that would be remunerative. We hope deeper ploughing and more thorough culture will yet be as universal in Canada, as it is with the good farmers of the Old Country.

From the Iowa *Homestead* we give the views of an American farmer who has tried and proved its advantages.—Ass't. Ed.

WINTER IN THE WEST.

Never but once in the history of the West has such fearful cold been experienced as that which culminated at Chicago on the 23rd of December, carrying the mercury to 23°. Throughout the West and Northwest the cold was generally intense, and the wave passing eastward, spirit thermometers in some portions of New Hampshire are said to have indicated 50° below zero.

At Janesville, Wis., 37° below was indicated; at Clinton, Iowa, 26°; in the Michigan lake shore region the weather was unprecedented; at St. Joseph, directly in the fruit belt, 20° below zero was indicated, and at South Bend, Ind., 25°; at Springfield, Ill., 13°; at St. Louis, Mo., 14°; at Cairo, Ill., the latitude of Kentucky and Tennessee, 7° below. At Toledo, O., 15°; at Detroit, 14°; at Fort Garry, Manitoba, 42°; at St. Paul, Minn., 30°, and at Madison, Wis., 25° below.

An idea of the extent of this wave will be imparted by the figures above given from a mass of data in our office. The most serious apprehensions are felt for the fruit buds, and even for many varieties of fruit trees. There is one thing, however, that will go a great way in warding off fears in this direction. The preceding dry season, extending through the fall, and until winter set in, carried the trees and buds into winter quarters in the best possible condition; and except to the buds of the peach and other tender plants, we do not anticipate serious evil so far. Already we do not anticipate the wide spread disaster that followed the winter of 1857, when vast amounts of apple trees even were killed to the roots.

We may expect continued cold weather this winter, since the whole country and the mountains to the west are covered with snow. We may also expect continued snow this winter, and probably much rain next season, since we have now had nearly three years of extreme drouth.—Chicago Rural.

HORSES MORE PROFITABLE THAN HOGS OR CATTLE.

EDITOR WESTERN RURAL:—The greater number of farmers say, by their actions, that it pays better to sell grain to the shippers, while some say give it to the hogs, others feed it to cattle, and a few prefer feeding it to horses. Either of the three last mentioned are no doubt more profitable than the first.

Will not the raising of horses, if properly conducted, enable the farmer to realize the highest possible price? I say if properly conducted, for if the farmer, as well as every one else, does not conduct his affairs in an economical, systematic and advantageous manner, it makes but little difference what kind of stock he may raise, or whether any at all. There is one class of hogs and cattle, as well as horses, that never brings any profit, that will never pay for the grain they eat, while another class will bring a reasonable return for the labor and feed.

It is a good hog that weighs four hundred pounds; and four dollars per hundred, or sixteen dollars, is a good price at sixteen or eighteen months old, if fat. Again, fourteen hundred pounds is good weight for cattle, steers and heifers, four years old; and six dollars per one hundred pounds, or eighty-four dollars is a fair price for cattle. I claim that it does not cost any more to raise horses that will weigh fourteen hundred pounds and sell for two hundred dollars a-piece by the car-load, than it does to raise five hogs worth eighty dollars, or cattle worth eighty-four dollars. If this be true, we have a profit on the horse, over hogs, of one hundred and twenty dollars; and over cattle of one hundred and sixteen dollars.

Perhaps two hundred dollars may be considered too high for horses; but it is not more so than the calculation we have made on hogs and cattle. I am aware that we have a great many small, worthless horses, that will not pay for keeping twelve months. But this need not necessarily be so, and would not if proper attention was paid to breeding good and large horses such as are in the greatest demand. The breeding of fast horses has ruined our stock to such an extent that it will take years of the most strenuous efforts on the part of those engaged in this branch of business to overcome the evil.  
I. D.