

bers or Cultivators, requiring the draft of three or four horses. Such an implement would thoroughly pulverize even the heaviest clays, to the depth of ten or twelve inches, and still deeper if desired, and several acres could be gone over in a single day. Thus a *deep land bed* might be readily obtained, which is an important object in this climate for all kinds of crops, and one that we might say is essential to the success of root culture. Heavy soils ploughed in the fall, and so drained or furrowed as not to allow of the stagnation of water, are immensely benefitted by exposure and frosts, and a good Cultivator will easily bring them into a fine and deep-till for Spring crops, without an additional ploughing. Light sandy soils are in general but little benefitted by fall ploughing, an operation that may be deferred, without any serious disadvantage till Spring.

Wheat that is thin and weakly should receive as soon as vegetation becomes active, a top-dressing of manure; wood ashes and soot, with a portion of gypsum are recommended. Potash, soda (Nitrates) and Guano are used in the old countries with great advantage; but the price of these articles precludes their general use, at least for the present, in this country. We are of opinion, however, that an occasional application of artificial manures for *special purposes*,—as when a crop is in immediate want of one or two ingredients essential to its growth will even in Canada, frequently pay expences and bear a profit. In the selection and application of these kind of manures, however, both experience and some degree even of scientific knowledge are necessary. When a top-dressing is given to wheat, and clover is sown, a slight harrowing is much to be recommended, finished by the application of the roller. Harrowing wheat when done with judgment and care is a beneficial practice, whether seeds or manure are sown or not.

The preparation of the land for Potatoes, and other root crops must be proceeded with without delay, as it is of importance that most kinds of vegetables should be sown in good season.—Although the potato is yet far from being restored to its former healthy condition, and the cause of its disease continues wrapt in obscurity; still extended observation and scientific investigation, have suggested several valuable and practical hints to the cultivator of this important vegetable. In all countries, and with all varieties, *early planting* has been found beneficial; the late-crops having suffered the most from the ravages of disease. We should consider it hazardous to recommend to our readers

to enter upon an extensive cultivation of this very uncertain plant; yet by the prudential observance of a few simple conditions upon a comparatively small scale, a tolerable degree of success may be, in most instances, realized.—Select healthy tubers, plant early in a soil that is dry and well cultivated, and moderately rich in organic substances. Strong animal manures should not be applied, at least but very sparingly; lime or wood ashes, would be far preferable.

The ground for Barley requires to be of good natural fertility, or well manured, and should receive the best cultivation. Drilling the seed, or ribbing, will be found advantageous with this as with most other kinds of grain. From two and a half to three bushels of seed to the acre, provided it be clean and good, will be sufficient, and should be sown as early as possible, but not exposed to the risk of frosts.

Such varieties of Indian Corn as are suited to this northern climate might be more extensively cultivated with advantage both for grain and fodder. The land for this crop should be dry, warm and rich; and the cultivation liberal. It is useless to attempt to grow maize, on cold backward soils; but much of our rich, wet land abounding in organic matter might, if thoroughly drained, be profitably brought under the culture of this crop. It is an excellent plan as soon as the leaves have made their appearance to sprinkle a little stimulating manure over the hill, such as gypsum, ashes, &c., with a view to push forward the young plants at this early stage beyond the depredations of insects, and thereby also ensuring an earlier harvest; which is an object in our climate of the very greatest importance.

As to Turnips, Mangel Wurzel, Carrots, &c., all that we can now say is, that no prudent farmer ought to be without them. In these matters we recommend a *thorough and liberal cultivation on a small scale*, as much safer and far more profitable, than an imperfect and slovenly treatment of a large breadth. One acre in root crops well managed, will yield a larger produce than treble that extent, under the treatment that is commonly practiced.

As the season is now far advanced, those of our readers who are anxious to secure a liberal store of food, both in hay and roots for carrying their stock through the next winter, must not lose a single moment in completing the necessary preparations. Meadows kept in good condition by liberal seeding and manuring, and suitable soils selected for root crops subjected to a system of efficient management, will generally enable the persevering farmer, notwith-