

surface; but merely that it should be loosened by the common subsoil plough, and rendered accessible to atmospheric influences, and thus gradually prepared for vegetable nutrition. When so prepared the ordinary plough may be set from time to time a little deeper, and the subsoil, be thus gradually incorporated, with the surface soil. Subsoils of sand, and of some gravels, are exceptional cases, but in nearly all clays and in all subsoils of an aluminous or tenuous nature and into which we know the roots of our crop will extend themselves in search, of food, common sense would seem to point out the advantage of adopting those means by which that food can be most readily supplied."

The editor of the *Mark Lane Express*, speaking in reference to ploughing and pulverization, observes:

"On very light land it is not so much mechanical tillage as abundant manuring that is the principal agent in producing crops; so that our observations will mainly bear upon the culture of loams and clays. Where the plough can turn up only a thin staple of loose, weak sand or peat, or flinty loam, the pulverization of the soil becomes almost a secondary point to the preservation and even increase of its tenacity; hence the great value of the presser and roller upon such land, and the endeavour to perform as much as possible of the tillage without the plough, which always lightens and turns over, whether the ground needs it or not."—*Boston Cultivator*.

THE SELECTION AND CULTURE OF TURNIP-SEED.

BY A PRACTICAL FARMER.

To obtain, and preserve from intermingling a true stock of good Turnips is of great importance to every farmer; and but few know what course to pursue to insure good seed from a well provided variety, or care much about the subject, generally confiding themselves to a purchase from the nearest seedsman or market gardener, who, in his turn, receives his usual annual supply from his "London seed-man," from "the old stock," which, in reality, is in a great measure literally too true, it being sufficiently notorious that "old stocks" are continually mixed off, to the no small loss of the growers. I have more than once lost a crop, in my early days of business, from this cause; but since I have adopted the practice of growing my own seed, I have never lost one, or indeed had a defective crop; and this plan I have followed for many years so that my "stock," from careful selection and close attention, has become well known, and long been in high favour in many districts.

The stock of any peculiar variety, if really good and hardy, should not be crossed with other like stocks; but if defective in any one point, i.e., size, form, colour of flesh, quality, hardness, habit of growth, quantity of top, length of neck, &c., &c., it may be profitably crossed under judicious care. I have grown in competition many varieties, in separate rows, along side each other, both of the Swedish and common sorts (having, on one occasion, twenty-four Swedish varieties, besides many of the common varieties), taking care to note their peculiarities; and my judgment has at last, settled down upon two principal varieties for my own growth: the Purple-top Swede, improved by myself, and the Red round or Globe, from a known stock of fifty five years' standing. The Swedish variety is a cross from a very hardy and well formed globular stock, with the best formed and largest bulbs of Skirving's

first new stock; combining, therefore, advantages of both. The Red round is of hardy growth, buries itself deeply in the soil, and produces a heavy crop. Both varieties are of excellent quality of flesh. It may be thought unimportant to the general reader to name these matters, but it is surprising to what extent growers will go to obtain first class stocks, and at great expense. I once saw a large and beautiful bulb of a purple Swede variety, from which the grower was about to obtain a stock, and for which he assured me he would not take £100. This individual did subsequently show some fine specimens at the Smithfield Club Show, and his stock has long stood deservedly high.

There are so many good "stocks," throughout the country, that it would be envious to name any single one; but it does behoove farmers to look closely after a good stock, and to procure growing seed, come from whence it may. It is not desirable to be sowed of the first year, the second year is better; it is more liable to run wild, and not to turn seed which kept well, grow freely in the fourth or fifth year; but never sow without trial, if it is odd.

The common practice of procuring seed by the London house is, to have it grown by contract. The seed-man finds the seed, and the grower is bound by contract to deliver it, in marketable condition for a certain price per bushel, subject to the supervision of the seed-man during the period of growth.

The district of Romney Marsh, in Kent, is the most resorted to by the London house, and as much as 2000 acres of seed are said to have been grown there in one season. The usual course is to sow the stock on the hills, and take the plants to the marsh to set. This is called transplanting, and is indeed to be preferred. Many, however, prepare the soil, and merely drill in the seed, taking care to look the plants carefully over in flowering time. I do not attach such great importance to the system of transplanting the bulbs as is generally given to it. It is often adopted from convenience as giving more time to prepare the soil. The stock may be kept, quaity true by the ordinary drill course, under judicious care. The great thing is, to prevent intermixture and inoculation: hence, no two similar varieties ought to be grown near together. Swede seed may be grown near to a common variety, without much danger, as the latter sort will be mostly out of flower before the Swede comes in. It is, however, best to be far apart in cases as bees are very industrious inoculators, and in this kind of propagation work injurious.

CULTIVATION AND MANAGEMENT.—I shall detail my own course of management of this crop throughout, which I think, will suffice for every useful purpose, although, in minor points I may differ from others.

SOIL, &c.—This should consist of good strong loam, but rich soil of any kind will produce a crop. It should be prepared in the autumn by deep ploughing and pulverisation, but not reduced to too fine a tilth. A somewhat open state, so as not readily to run together from heavy rains, is best.

SELECTION OF BULBS FOR STOCKS.—To keep up a good, a regular, and true stock, I select from the field crop of turnips as many of the best bulbs of like character and form with the stock I cultivate as I require; and occasionally [as last year] I obtain a renewal of my stock from a single turnip. These are planted in a square or plot to themselves, in the midst of the general crop, taking care to have the intervals wide enough to prevent the intermingling of the pollen. From this "best selected," I grow my own crop out of which my selection is again made