

for the heavy land round Chambly produces just what is wanted, and a mutual change of sets would benefit the farmers of both districts.

When sets are made by dividing large potatoes, they are apt to spoil if placed in a heap. They should be spread out thinly, and if to be kept for more than two or three days, a dusting of plaster will close the pores and, by preventing bleeding, will obviate all danger of heating, a neglect of this precaution has often been the cause of many a miss-plant. I know nothing more harassing to an accurate eye than a gap in the rows of any growing crop.

No means, since the prevalence of the potato disease, have been left untried to ward off its attacks; but hitherto all expedients to that end have failed of success. So there is no use in fiddling over your seed-potatoes with any quack nostrums brought round the country by those swindling rogues the agents. The disease has nothing to do with the seed. One thing, however is certain: the earliest planted crops of potatoes invariably suffer less than later crops. For instance: my Ash-leaf kidneys, planted this year on dampish heavy land, were ripe by the tenth of August, and not one single diseased tuber could I find among them. Two hundred yards off, on the same farm, where the soil changed to a dry sandy loam, Early-roses, planted a fortnight later, and not ripe till September 15th, were severely attacked. Some people, I see, make a fuss about whether the cut sets are laid in the drills germs up or down. It does not make the slightest difference.

*Preparation of manure.*— If you are fond of growing weeds, you can succeed to your hearts content by carting out the dung fresh from the stable door, and depositing it in the drills without any preparation. You will certainly save labour in the present by doing so, but consider what lots of seeds of that vile *mil-sauvage* (wild timothy) and other weeds have been carried into the mangers of the horses and cattle with the hay! You don't want them to grow again in your fields, and a turn of the manure heap will kill them fast enough. Don't turn the heap carelessly. If you have drawn out the dung of horses, cattle, and pigs, in regular order, you will find the mixture in good, fresh condition, easy to work, and only frozen at the sides. Now, in this climate we can't, as a general rule, cart out dung to the fields in winter, so we must take it from the yards at planting time, and turn it where it lay accumulating all the season. Shake the tougher pieces well, throw the outside inwards, and keep the heap regular in breadth and height to obviate irregularity of heating. If there is a fair proportion of horse-dung present, the heat ought to approach 140° F. in about ten days, and a few hours at that temperature will render all seed innocuous.

The land is, now, we will suppose, fit for drilling up with the double-mouldboard plough. You, as a rule, don't keep five pair of horses, so you can't go to work as systematically as our Scotch friends do in their own country, where farms are larger. You must make the drills first, stop the plough to cart out the dung and plant the sets, and then turn to again with the plough to split the drills: a bore, but it can't be helped. But even here there is a right and a wrong way of doing the work. If you dung more drills than you can plant and split before the sun has dried the dung, it will not mix so well with the soil as if it were covered in at once—that's easy enough to see—there won't be any loss of ammonia, as some fancy, because long before that time the ammonia has been fixed, but the quicker the work is got over, the quicker will the combination of earth, dung, and germ take place.

Again, in spreading the dung in the drills, how often did I see last summer heaps of manure laid down at ten and

(1) If you pass the roller over the piece, you will find the drilling easier to keep straight.

fifteen yards apart, to be afterwards scattered anyhow among the drills: equal manuring in this way is an impossibility. Another plan, and this I saw practised by a good Scotch farmer on the Richelieu, is to lay down the dung regularly in heaps along the centre of five drills: how can a man spread manure equally over so wide a surface? No, the easiest, best and quickest way is to draw out the dung into the middle furrow up which the horse walks, the wheels of the cart going in the two furrows on each side of it, and to divide the manure equally between the three drills. An active man, accustomed to the work, does not allow the horse to stand still at all, but makes him walk on slowly while he pulls out the dung with the dung drag. The back-board of the cart need not be kept on at all, as small loads are necessary in such soft ground. The spreader should shake to pieces every lump of dung, teasing out any that may happen to be ranker than the rest, trampling on the spread dung as he walks along, and keeping it within the limits of the bottom of the drill.

The width of the drill varies from 20 inches for Ash leaf kidneys to three feet for Champions. As to the Early-Roses, Vermont's, and the other ordinary sorts, twenty-six inches is width enough for them, and nothing is gained by additional width. All you require is room for the horse-hoe to work comfortably. In the drills I would put ordinary potatoes a foot apart, to give space enough for a stroke of the hand hoe between the plants. The sets should be placed in a cart on the headland of the field, and can be easily ladled into the baskets by means of a common iron or wooden shovel.

The dung having been spread, the potatoes planted, and the drills split, you can leave the field to take care of itself for about ten days. If you wish your potatoes to come up in the middle of the drills, it will then be time to harrow them down. They use a pair of saddle-harrows in Scotland, but I prefer the chain-or web-harrow, which destroys every seed-weed and leaves even grass and docks so naked that the hoers can hardly avoid seeing them. This chain harrow covers four drills at a stroke, the saddle-harrows only two.

As soon as the rows of potatoes are visible, pass the horse-hoe up the drills—not the "drill-grubber," but the horse-hoe, which will pour down the sides of the drills and leave only a narrow space of, say four inches, to the hand hoers. When the land is stony, the drill-grubber must be used perforce, but in all others soils the horse-hoe does much better work. For a good one see engraving p. 163, vol 1 of the Journal of Agriculture. I think I have mentioned in one of my previous articles that the one in question, the copy of which was taken from a card-board model, was drawn much too leggy in every way, but the general shape is a very effective one.

A few days after the horse-hoeing, the potatoes should be edge-hoed by hand. The earth should not be drawn away from the plants, but the hoer, with his feet on each side of the row, should chop the earth at the side of the plants, and stir it between the plants. As an active man, or even a woman, can get over an acre of this job in a day, it cannot be very expensive, and the good it does to the growth of the crop, especially on heavy land, is enormous: it loosens the earth, destroys the weeds that spring from seeds, and throws the root-weeds out into the interval between the drills, where the subsequent operations of the horse-hoe ensures their desiccation before their final interment by the earthing up. You may think you save money by neglecting this hand-hoeing; but I am convinced, from long experience in potato growing, that no one operation pays better, both in the increased yield of the potato crop, in the additional cleanness of the land, and in the improvement of the succeeding crop of grain from the perfect pulverisation the soil receives.

The horse-hoe will of course be kept going every week