

to do something towards the cultivation of the pear as a dwarf. There are several reasons which might be urged for the cultivation of the pear as a dwarf. I shall content myself with naming four. The first is hardiness; second, early productiveness; third, the number of varieties that can be grown on a limited space of ground; fourth, the facility afforded for summer pruning, thinning the fruit, detecting insects, and the security of the fruit from being blown off the trees by high winds.

**Hardiness.**—In this respect the pear seems to stand next to the apple; for the low temperature with which we were visited early in March, proving fatal to peaches and cherries, has not in the least injured the dwarf. The blossom buds of most varieties of pear are apparently as little affected by a (winter) temperature of 16 or 20 degrees below zero (if the wood is thoroughly ripened the previous summer) as are apples, is satisfactorily proved the past winter.

**Early Productiveness.**—Many varieties of pears worked on the quince, if judiciously root-pruned, and young wood pinched in summer, will bear fruit at from three to four years from the bud in graft; and, barring spring frosts while in blossom, we may depend on them bearing regularly afterwards. Root-pruned trees in a bearing state are in no danger of being winter killed or blighted. The principal thing to guard against is overcropping; for although a pear tree may bear fruit at two years from the bud or graft, it must not in every instance be allowed to bear as much as it would, or the result will certainly be a stunted growth for several years, and a probability of the ultimate loss of the tree. I prefer five or six fine sized fruit from a young tree, in preference to a dozen inferior both in size and flavor.

**The number of Trees which can be grown on a limited space of ground as compared with standard Trees on the free stalk.**—The distance apart at which standards have been planted is from 18 to 24 feet, and with many varieties the planter or cultivator would have to wait at least a dozen years before he had the satisfaction of tasting fruit from them; whereas dwarf trees may be planted from five to six feet apart, root-pruned annually or biennially, and summer pruned. Many years will elapse ere the trees get overcrowded. Should they become so, the facility with which they can be removed is a great recommendation. I may mention that on the 11th of April, 1860, I had four pear trees removed from where they had been growing for three years, but had not fruited, although root-pruned twice; three out of the four trees bore a fair crop of excellent fruit the same season. Three of the varieties were Glout Moreau, Buffam, Belle Lucrative. The other I cannot name with certainty.

Another reason to be urged in favour of dwarf pear trees is the facility with which they can, or should be, attended to in summer. The various

manipulations requiring attention during the growing season are thinning the blossom buds, impregnation of the shy setting sorts, thinning the fruit, pinching, or summer pruning the young shoots, and destroying insects; all of which can be got at from the ground without the trouble of steps or ladder. The operator can get over double the number of trees, and do the work equally well, when such is under the eye and hand, as when he has to climb ever so short a distance. Dwarf trees, especially in exposed situations, are not so liable to be injured from the effects of strong winds. Large varieties, such as the Duchesse d'Angoulême, Blum Diel, Bartlett, &, on standard trees, especially in exposed situations, are so much rubbed, if not shaken off the tree, as to be rendered almost useless, either for stewing or dessert.

Soil to suit the pear should be pretty strong, rich, naturally dry, or drained artificially, and well supplied with manure. Pear trees on the plan, from four to six feet high, branched within twelve inches of the surface of the soil, root, pruned four times in six years, receive annually a good covering of decomposing stable yard manure before winter, and in spring before the frost is out of the ground, (say March) each tree has from six to eight gallons of decomposed sediment put over the surface of the soil as the roots extend, and allowed to wash in the spring rains. The result of such like treatment has hitherto proved very satisfactory.

Root pruning may be defined as digging a tree about at the tree at a distance of one foot from the stem, (for a tree of from two to four years old) and to a depth of 12 inches, or until the lowest roots are reached. Should the tree be vigorous, one half of the roots thus exposed must be cut off—using a very sharp spade or knife, and the spade inserted under the ball of soil, as to reach the top root, but returning the ball as whole as possible. The soil removed in exposing the root is now to be filled in; and when the ground be dry, each tree operated upon require over 10 gallons of water. The object of root-pruning is to give the tree a healthy character—not too much at one time—but should it not be obtained the first time, the operation must be repeated at a distance of three or four inches further from the stem than on the previous occasion, i. e., at 15 or 16 inches from the stem of the tree all round, leaving a ball about 30 inches in diameter, when the roots, uncut at last pruning, may now be cut, and the tree laid a little on one side, so that every root thicker than a goose-quill, protruding beyond the ball aforesaid, shall be removed, the soil led in the trench, and the tree as it were planted afresh. In root-pruning a very vigorous tree that has been growing undisturbed for several years, some caution is necessary at the first operation so as not to cut off too many roots at once; but after the first pruning, the cut roots producing so many fibres or small roots that