

Agricultural.

DWARF FRUIT TREES FOR GARDENS.—BY THOMAS RIVERS, SAW BRIDGE WORTH ENGLAND.

(From the Horticulturist for March.)

For gardens with a moderately deep and fertile soil, pears budding on the quince stock will be found to make by far the most fruitful and quick-bearing trees; indeed, if prepared by one or two removals, their roots become a perfect mass of fibres, and their stems and branches full of blossom buds. Trees of this description may be planted in the autumn, with a certainty of having a crop of fruit the first season after planting; always recollecting that a spring frost may destroy the blossom unless the tree is protected.

A most valuable auxiliary to precocious fruitfulness in pears is the quince stock: pears grafted on it may be safely recommended for all soils of moderate depth and fertility, and even for light and sandy soils I am induced to advise it, only in those circumstances the trees must have more care and high cultivation. In soils of that nature I should recommend the surface of the soil round the tree to be covered during June, July, and August with short grass moss, or manure, and to give them once a week, in dry weather, a drenching with guano water (about two pounds to six gallons,) which must be well stirred before it is used, each tree should have twelve gallons poured gradually into the soil. by this method the finest fruit may be produced.

In planting pears on the quince stock, it is, as I recently discovered, quite necessary that the stock should be covered up to its junction with the graft. This jointing of the graft to the stock is generally very evident, even to the most ignorant in gardening matters.

If the soil is not excessively wet, the tree may be planted in the usual manner, so that the upper roots are on a level with the surface of the soil. No manure of any kind should be put to them; but if the soil in which it is planted be not friable enough to enter freely into the mass of fibrous roots, some light mould should be procured; this should be carefully filled in, and the tree well shaken, so that the earth is thoroughly mingled with its roots. When this is done, the earth all filled in, and trodden lightly, the tree, according to the usual method, is planted. But with the pear trees on the quince something more is required: this simply to form a mound of compost, about half rotten manure and earth, mixed in equal quantities, which must cover the stock up to the junction of the graft, and is made of rich compost, in order to encourage it to emit roots into the surface soil, and to keep it from becoming hard and "bark bound." To make this emission of roots more certain, the stem may be tongued as usual in layering; and these raised pieces of bark must be kept open by inserting a piece of broken flower-pot or slate. Several of these tongues may be made, and by the end of the first year after planting every incision will have emitted roots; the stock, owing to its being kept constantly moist, will swell and keep pace with the graft, and the tree will flourish and remain healthy. As the mound will subside by the heavy rains of winter, presuming the trees have been planted in autumn, fresh compost of the same nature must be added in spring, and again every succeeding autumn. The great object in the culture of the pear on the quince stock is to encourage the growth of its very fibrous roots at the surface, so that they may feel the full influence of the sun and air.

My object is to improve the culture of fruit trees in small gardens, and to those conversant with such matters, I need only point to the very numerous instances of rich garden ground, entirely ruined by being shaded by large spreading standard, or half-standard unpruned fruit trees. Now by cultivating pyramidal pears on the quince—apples in the same form on the paradise stock—the cherry as dwarf bushes on the Cerasus Mahaleb—and the plum as a pyramidal tree—scarcely any ground is shaded, and more abundant crops and finer fruit will be obtained.

I wish to impress upon my readers, that my principal object is to make trees fit for small gardens, and to instruct those who are not blessed with a large garden, how to keep trees "in hand," and this can best be done by annual attention to their roots, if a tree is suffered to grow two, three, or more years, and then root pruned it will receive a check if the spring be dry, and the crop of fruit for one season will be jeopardized; therefore, those who are disinclined to the annual operation and yet wished to continue the growth of their trees within limited bounds by root pruning—say once in three years—should only operate upon one third of their trees in one season; they thus will have two-thirds in un-checked state, and those who have ample room and space, may summer pinch their pyramids, and suffer them to grow to a height of fifteen or twenty feet without pruning their roots. I have seen avenues of such trees in Belgium really quite imposing.

Pyramidal pear trees on the quince stock where the fruit garden is small, and the gardening artists feels pleasure in keeping them in a healthy and fruitful state, by perfect control over the roots, should be operated as follows:—A trench should be dug round the tree, about

eighteen inches from its stem, every autumn, just after the fruit is gathered, if the soil be sufficiently moist; if not, it will be better to wait till the usual autumnal rains have fallen, the roots carefully examined, those inclined to perpendicular growth cut with the spade, which must be introduced quite under the tree to meet on all sides, so that no root can possibly escape amputation, and all the horizontal roots, except those that are very small and fibrous shortened with the knife to within a circle of eighteen inches from the stem, and all brought as near to the surface as possible, filling in the trench with compost for the roots to rest on; the trench may then be filled with the compost; well rotted dung and the mould from an old hot bed, equal parts, will answer exceedingly well; the surface should then be covered with some half rotten dung, and the roots left till the following autumn brings its annual care.

IMPORTANCE OF ROOT CULTURE.

I propose to give my experience in the use of roots for cattle and hogs. I grow beets, carrots, ruta bagas, and parsnips, and find that the sugar beet produces the most milk, and the carrot and ruta bagas are best for fattening.

But the ruta бага is far the best for that purpose, and I am surprised that so valuable a root is not more generally grown in this country. I have had a farrow cow on ruta bagas and ordinary hay, for two months this winter, and she made good beef, although I milked her a great part of the time; and I have had a breeding sow on them, and them only, for the last two months, and my neighbors say that she is too fat for breeding. But I consider that the parsnip is a most valuable root for cattle; and hogs prefer them to any other root, we hear the carrot extolled, but no one grows the parsnip, and yet they are easier to raise and certainly more valuable. But I am aware that they are hard root to get up—a general complaint against them. But you can leave them in the ground all winter, and dig them in the spring, and save housing them, which is no small consideration; and they come in well between hay and grass—the very time that they are wanted.

If any one thinks proper to try them, I know he will not repent it. Sow early, in rows eighteen inches apart, and thin them to eight inches in the rows. Any good wheat soil will suit them.—N. E. Farmer.

INSECTS.

To say nothing of the benefits or inconveniences we experience from insects, there are in their minute shapes such wonderful instincts, powers, and, I may add, passions, comprised; their habits are so curious, extraordinary, and varied—their forms so splendid and beautiful—some in their silken robes, some in their blue and burnished armor, some with their glowing and gorgeous wings, transparent as crystal, or feathered like the peacock; they effect such vast designs with such small means, and they haunt all corners of the habitable globe, that I can conceive no portion of all God's wonderful creatures more capable of at once fascinating the attention, charming the fancy, or exciting the highest admiration in the most intelligent minds.—Wm Howitt.

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