

Laying Out the Pear Orchard *in the Willamette Valley*

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In the Willamette Valley, fruit trees should be planted as early in the winter as dormant trees are available from the nurseries and the soil is in a workable condition. This does not mean, however, that the soil must be plowed and worked down to seed-bed fineness. Actually, the staking out and planting will be facilitated if a clover sod or crop residue is left on the field.

To stake out an orchard, you must first decide if you are going to plant on the square or the hexagonal system. The latter is not looked upon with much favor at this time, because of the difficulty encountered when the orchard ages and it becomes necessary to do some systematic thinning; so the square system will be used in most cases.

If available, a transit is helpful; however, a very good job can be done with a minimum of equipment.

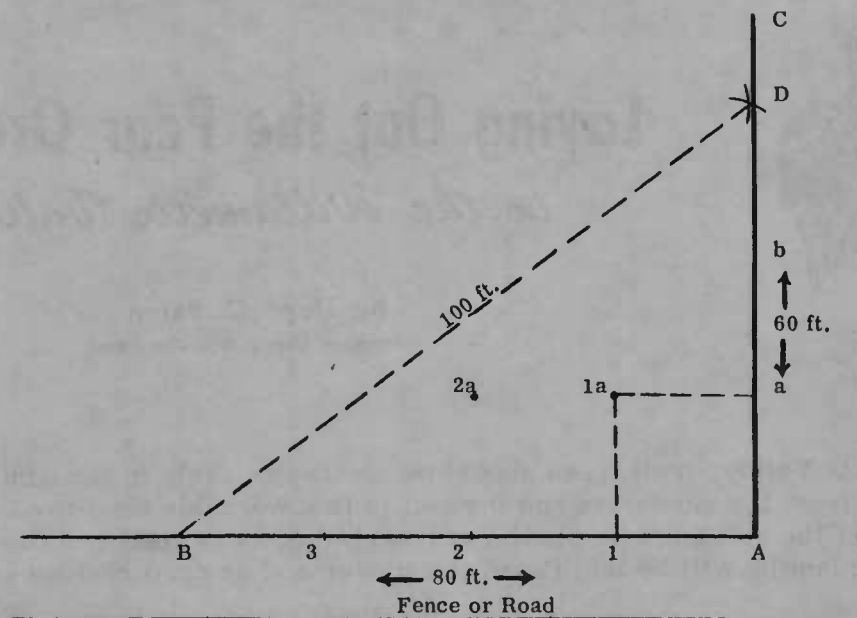
A measuring tape (preferably 100 feet), a set of wires of the same length as the distance apart the trees will be set out, and some stakes are all that you will need.

The set of wires consists of two wires with one end of each joined together in a small ring or around a short, stout, pointed peg and the free ends fastened to separate rings that will fit over the stakes you are using to mark tree locations.

First establish two base lines at right angles to each other across the field. This is done by measuring and marking off 80 feet, starting in a corner and running parallel to a road or a fence that is considered permanent as AB in Figure 1. Then at right angles to line AB, lay off line AC, 60 feet long striking an arc at this point using point A as a pivot point. From point B with a line 100 feet long, strike another arc across the previous one at point D. The line AC can then be extended through the point where the arc crosses to give your exact right angle base line location. Both lines AB and AC can then be sighted across the field and stakes set along them at the predetermined spacing. Make these measures exact as all future staking will depend on them.

Now commence to stake the field by placing the end rings of the wire set over stakes 1 and a and drawing the wire tight. A stake can then be set at 1a. Move the wires over so the rings can be placed on 1a and 2 to find the location for stake 2a. Proceed back and forth across the field in this manner until completed, making certain that the same tension is applied when setting each stake and perhaps adjusting occasionally by sighting in, especially if the ground is uneven. A three-man crew can stake out an orchard easily and quickly by this method.

Another method quite often used is the use of a single wire with soldered points on it, indicating where the stakes are to be set. This can be stretched across the field where each row is to be and the stakes set accordingly.



Planting

A planting board is desirable if the rows are to be kept straight. A 1 x 4 or 1 x 6 about 4 feet long with a notch in each end and another in the edge at the exact center works nicely. Before digging the hole, place the planting board so that the stake, showing the tree location, fits in the center notch. Then place a stake in the notches at each end of the board and remove the board and the center stake. After the hole is dug, the planting board is put back in place making certain it is facing the same direction as it was originally. The tree is then placed in the hole so that the trunk fits in the center notch, which should retain the original staking alignment.

Dig the holes when the soil is friable, not gummy, and as near the time of planting as possible. Exposure of soil to the weather may cause the edges of the holes to harden, making it more difficult for the tree to get started.

Holes should be wide enough to accommodate the root system of the trees without cramping or bending and deep enough to allow the tree to be planted to the depth it stood in the nursery. If you are willing to dig the hole big enough, no roots need be pruned off except those showing rot or disease, or those that are broken. There is one exception to the depth of planting mentioned above. If the pear is on a quince root with an old home or hardy interstock and it is desirable to get the permanent roots to form on the interstock, it then becomes necessary to set the tree at a depth that will bring the interstock in contact with the soil.

Do not permit tree roots to dry out during the planting operation. Keep tree roots covered with damp soil or burlap, or keep them in a barrel of water. Set the tree in the hole with the roots well spread out. You may wish to set them on a small mound in the bottom of the hole with the roots pointing downward along the sides of the mound. Sift in 2 or 3 inches of fine soil over the roots and firm down to work out air spaces. Continue filling hole with 2- to 3-inch layers and firming until full.

If good soil building practices have been followed prior to planting and the site is of average fertility, no fertilizing is needed or desirable at planting time. Be sure not to place any fertilizer in holes where it might come in contact with roots.