

Pear Tree Planting Instructions

Site and Soil Requirements

Air drainage and freedom from spring frosts are important in the location of pear trees. Pear trees bloom relatively early, normally from one to several weeks before apples. So they are much more subject to the hazards of spring frosts.

As with all fruit trees, sunlight is a key to maximizing fruit production. Pick an area where the trees will be in the sun most or all of the day. The early morning sun is particularly important because it dries the dew from the leaves, thereby reducing the incidence of diseases. If the planting site does not get plenty of sun, do not plant pear trees. Pears do best in soils with a pH of 5.9 to 6.5.

It's recommended to plant at least 8-10' away from patios, water pipes and sewer pipes. You might not expect sewer and water lines to be affected since they are buried so deeply. But, since sewer and water lines tend to be wet, roots will grow to them and around them if the tree is planted too close. This is true for most trees.

Planting and Pruning

It is best to plant pear trees in the winter while they are dormant.

Pears have a tendency to grow upright with very narrow crotch angles, early training and pruning are necessary to develop a strong tree. Four- to six-foot unbranched whips on calleryana rootstocks are most desirable. Plant them 20 feet apart. If planting is delayed, heel them in by completely covering the roots with soil. Pack the heel soil eliminate air pockets. Never allow the roots to dry out. If the roots are dry when you receive the trees, soak the entire tree in water for several hours.

Spacing between trees: 12-15'

Dig the hole deep and wide enough so the root system has plenty of room. (Keep the topsoil in a separate pile so you can put it in the bottom of the hole.)

Roots grow better in soil that's been loosened.

Fill the hole, putting the topsoil back in first. You can avoid creating air pockets by working the soil carefully around the roots and tamping down firmly.

You will see a knot at the base of your pear tree. This is the graft. This knot should be at least an inch above the dirt line.

At planting, prune the trees back to single whips 24 to 30 inches from the ground line. After a single growing season, your tree should look similar to the tree in Figure 1. Prune off any limbs that are less than 18 inches from the ground, leaving four to six limbs to be the scaffolds (main fruiting limbs on a mature tree). Figure 2 illustrates what Figure 1 should look like after pruning.

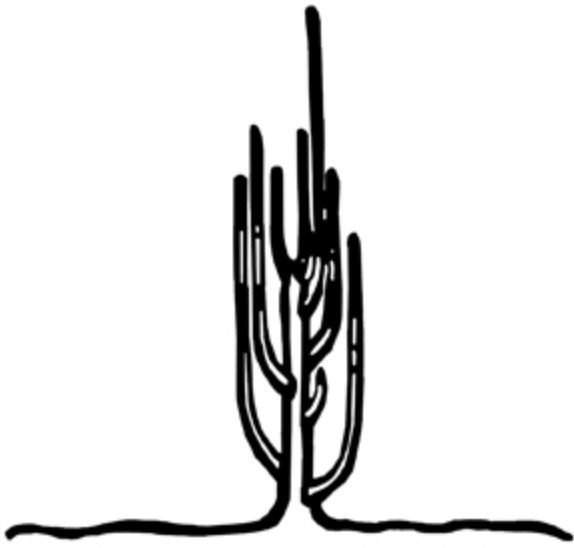


Figure 1. A 1-year-old pear tree before dormant pruning.

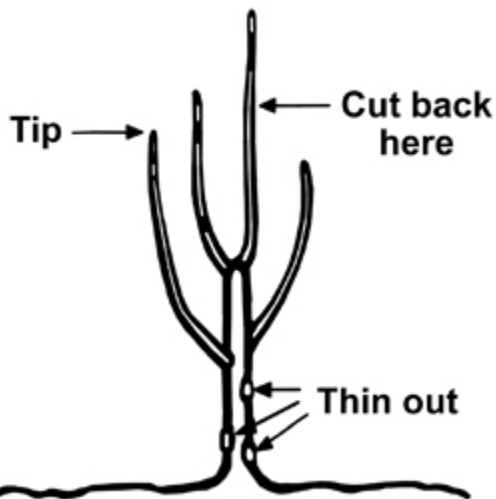


Figure 2. A 1-year-old pear tree after dormant pruning.

After the second season, tie down the lower scaffolds to a 45-degree angle to help open up the tree to light. Prune out crossing, broken and/or diseased limbs and vigorous upright (vertical) sprouts that may develop along the limb.

Pruner's Note: Pear trees are extremely susceptible to fire blight, a disease that kills limbs and sometimes whole trees. Remove diseased branches as soon as they appear. When pruning out a diseased limb, cut at least 6 inches below the area where any infection appears. After each cut, dip the cutting surfaces of your pruners in rubbing alcohol or a 1:9 chlorine bleach water mixture. Burn the diseased pruning's or have the garbage collector haul them off.

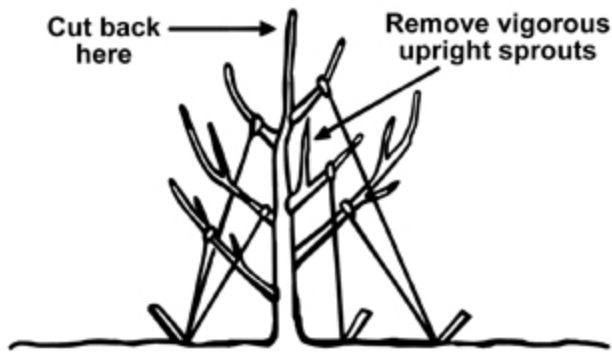


Figure 3. A 2-year-old tree properly trained with strings on scaffold limbs in the dormant season. Train limbs to a 45-degree angle.

Fertilization

It is always a good idea to have your [soil tested](#) before planting, and follow the recommendations. You can get information on [soil testing](#) from your county extension office.

Fertilize pear trees annually, using a split application.

Apply 1 cup of 10-10-10 fertilizer per tree per year of tree age, with a maximum application of 12 cups. Apply half of the amount before growth begins and the other half after fruit set. Broadcast each application over an area that corresponds with the drip line of the tree. If you do not get a fruit set, do not apply the second half of the application.

If the trees are heavily pruned, reduce the amount of fertilizer applied in relation to the severity of pruning. Heavily pruned trees most likely will not need fertilizer for a year or two. Also, if the pear trees make too much vegetative growth, reduce the rate of fertilization for the next year. Shoot growth on bearing pear trees should average only about 6 inches annually.

Picking Maturity

To attain highest quality, pears must be harvested before they are ripe. If picked too early, they are undersized and lack sweetness and flavor. If picked too late, the fruit ripens quickly, is gritty in texture, and is subject to core breakdown.

One measure of maturity are the fruit lenticels. These are the small “dots” or indentations on the fruit’s skin. Lenticels of immature pears are white; however, as cork cells develop the lenticels become brown and shallow. The brown in the lenticels is a good indication that the fruit is ready to be picked and will ripen without shriveling. Color between the lenticels also becomes lighter green than at the lenticels.

Diseases and Insects that Attack Pears

A gardener who produces the best quality fruit controls diseases and insects. Diseases common to pears are scab, black rot, bitter rot, pear leaf spot and fire blight. The two most common diseases are pear leaf spot and fire blight.

Fire blight is a disease that you should learn to recognize if you plan to grow pears. The disease can attack pears throughout the growing season, but it usually begins during bloom. Blighted tissues become water soaked then quickly wither and blacken. The disease moves down the branch from the point of infection. The tissue under the bark of the most recently killed leaves or flowers will be darkened and moist in appearance. During periods of high humidity or rain, the blighted areas will usually ooze a milky fluid. This fluid becomes reddish brown as it dries.

Pear trees can be protected from fire blight by a spray program beginning at bloom and continuing through the summer. Once a tree has been infected, cut out and burn the diseased portions. Sprays will not control the disease in infected branches. Make cuts 6 inches to 8 inches below any dead tissue. After each cut, soak the clippers for a few seconds in a solution prepared by adding $\frac{1}{2}$ cup of household bleach to 5 cups of water. When cutting is completed, rinse clippers in running water and oil lightly.

Many other conditions such as nutrient imbalances, winter damage or drought stress can cause pear leaves to blacken and die. In these cases, the tissue under the bark in the afflicted area will remain green or have a dry brown appearance.

Pear leafspot begins as small purplish-black spots on the leaves or fruit. The spots gradually enlarge to form brown lesions to $\frac{1}{4}$ inch in diameter. A small, black blister may appear in the center of these spots. Leafspots can only be controlled with a spray program beginning as the first leaves appear and continuing through July.

Damaging insects are apple tree borers, red spider mites, scale, aphids, and fruit worms.