

Pears for New Hampshire Home Gardens

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Pears will grow well throughout the southern half of New Hampshire. They are reasonably winter hardy where temperatures seldom fall below -25°F. Pears bloom about a week earlier than apples and spring frost damage to developing buds and flowers can occur on frost-prone sites.

What About Dwarf Pear Trees?

Pear trees, like other tree fruits, are produced by grafting the desired variety (such as Bartlett) onto a rootstock. Pear seedlings are commonly used as rootstocks and produce trees that are reasonably winter hardy and vigorous. They are normally spaced 15 feet apart in the home garden.

Dwarf pear trees are produced by grafting pear varieties onto selected quince rootstocks. The result is a tree approximately half the size of seedling rootstock trees. Quince roots are not as winter hardy as seedling roots, and do not tolerate either excessive soil moisture or drought well. In addition, quince roots are very susceptible to fire blight disease. Although they may grow reasonably well for several years, dwarf pear trees may be short lived in New Hampshire. Dwarf pear trees are planted 8 - 10 feet apart.

Purchasing Nursery Stock

Purchase trees (dormant trees preferred) from a reputable garden dealer or nursery. Tree quality should be the major consideration when purchasing trees. One-year-old trees, 4 to 6 feet in height and at least 5/8 inches in diameter usually grow better than smaller grades.

When ordering trees, plan for the pollination needs of the varieties you choose. Pears are self-unfruitful and require pollen from a different variety (cross-pollination) to set a crop; so two varieties are needed. Bartlett and Seckel do not pollinate each other and plantings with these two varieties should include a third variety to insure fruit set. Magness produces no pollen and will not function as a pollinizer.

Planting

Pear trees will do reasonably well in a wide range of soil types except that they will not tolerate poorly drained

soils with a high water table.

Proper soil preparation is an important first step. Soil should be tested and lime applied as recommended to raise the pH to 6.5. Complete eradication of perennial weed species, particularly quackgrass, is also necessary to insure success. Pear trees require full sunlight all day long.

All fruit trees including pear should be planted in very early spring--as soon as the soil is dry enough to work (mid-April to May).

If the planting site is not ready when the trees arrive from the nursery, unwrap the trees and "heel-in" the roots in moist soil in a shady spot. Trees should be planted while still dormant.

Planting the Tree

- (1) Dig a hole large enough to allow the roots to be spread out completely. (This will require a hole that is usually much wider than it is deep.)
- (2) Back-fill the planting hole with topsoil or a mixture of topsoil and compost or peat moss. Do not use sod to fill the hole.
- (3) Plant dwarf pear trees so the graft unions are 2 to 3 inches above the soil surface. The graft union is the point where the variety was grafted onto the rootstock.
- (4) Firmly pack the soil around the roots. Back-fill the hole 2/3 full, soak in 2 gallons of water, and finish back-filling. Do not leave a depression or water catching basin around the tree.
- (5) Remove any tags or labels attached to the trees as they will girdle the trunks after growth begins.
- (6) No fertilizer should be added to the planting hole. Trees can be fertilized after rain has thoroughly settled the soil around the roots (2 to 3 weeks after

planting). Apply 1/2 pound of 10-10-10 by spreading it lightly in a wide circle 16 to 20 inches from the tree trunk.

Pruning At Planting

Cut back one-year-old whips (unbranched trees) to 36 inches above the ground (Fig. 1). Trees less than 36 inches in height need no heading back. If the trees you received from the nursery are well branched, leave as many well-positioned branches in the tree as possible to aid growth (Fig. 2,3). Remove branches with narrow crotch angles, and those lower than 18 inches from the ground.

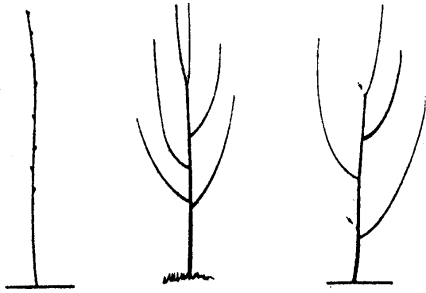


Fig. 1. A one-year whip when set has no branches.

Fig. 2. A well-branched tree received from the nursery before pruning.

Fig. 3. Same tree as Fig. 2 after pruning.

Pruning Pear Trees

Training the young pear tree

With slight modification young pear trees should be trained to the central leader system (Fig. 4) and many of the same procedures used in training apple trees can be followed as their growth and fruiting habit are similar. Because of their more upright habit of growth, young pear trees may appear too dense, however, once they begin to fruit the branches will spread naturally. Pruning during this time should be limited to those cuts necessary to maintain the dominance of the central leader. It may be possible to induce fruiting at an earlier age by manually spreading scaffold branches to a position where limbs are almost, but not quite horizontal. This can be done by bending the branch to proper position and securing it with heavy twine tied to a stake driven into the ground. Care should be taken that the twine does not girdle the branch.

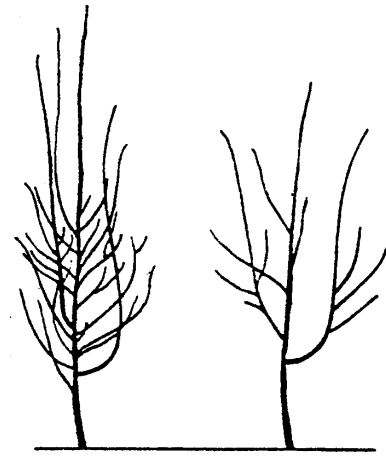


Fig. 4. Young pear tree before and after pruning.

Pruning the mature pear tree

Because of their susceptibility to fireblight, pear trees are pruned less severely than apple trees. Pruning is often limited to removing suckers, watersprouts and those branches that are out-of-bounds. It may be necessary to do some thinning out of smaller branches to allow for better light and spray penetration and to improve size and color of the fruit. The optimum height of a mature pear tree is between 15 and 18 feet. This height can be maintained by cutting the central leader back to a suitable two- or three-year-old side branch.

Fertilizing Pear Trees

Moderate rather than vigorous growth is preferred for pear trees. Excessively vigorous trees tend to be more susceptible to fire blight infection than those making moderate growth. Young pear trees should be fertilized with a pound of a general garden fertilizer such as 10-10-10 while 2 pounds will generally supply the nutrient needs of mature trees. Application rates should be adjusted to compliment the growth rate of individual trees.

Varieties

- Clapp's Favorite** - Large, good quality. Fireblight susceptible. Late August.
- Moonglow** - Medium size, soft. Good fireblight tolerance. Late August.
- Bartlett** - Superior quality and flavor. Susceptible to fireblight. Ripens in September. Will not pollinate Seckel.

- Seckel** - Small, yellow-brown russeted pear. Easy to grow, excellent flavor. Some fireblight resistance. Mid-September. Will not pollinate Bartlett.
- Bosc** - Large, russeted pear. Excellent flavor and stores well. Ripens early October in Durham.

Asian Pears

Asian pears, also known as "apple" pears or "oriental" pears, are crisp and crunchy rather than "melting" like European pears. Flavor is sweet and more delicate. Asian pears may not be as hardy as European pears and plantings in Southern New Hampshire only are recommended.

While European pears are generally picked before they are ripe and allowed to ripen off the tree (tree-ripened European pears are often gritty in texture), Asian pears are generally tree-ripened for maximum fruit quality.

- 20th Century** - Medium-sized, round fruit with clear yellow skin and crunchy, sweet, white flesh. Ripens Sept. 1 in southern N.H. Pear psylla has not been a problem on this cultivar in test plantings in Strafford County.
- Shinseiki** - Crisp, round yellow pear with sweet, white flesh. Ripens in late August.
- Hosui** - Large, reddish-brown; ripens in September. Flesh soft, sweet.