

European and Asian Pears

Pears rank second in importance to apples to temperate zone fruit. Fire blight limits its commercial production to the drier west coast and parts of Michigan and New York.

Site Selection and Fertility

Pears prefer a well-drained and medium textured soil and irrigation is need in dry periods on our lighter soils. Pears do have some tolerance for wet soils but they should be avoided. Since pears bloom very early, select sites which are not prone to late frosts to avoid crop losses. Honey bees or better yet orchards bees will be needed to pollinate your trees. Since pears have a very low sugar content the honey prefer dandelions to pear blooms. Controlling dandelions may help your fruit set. Fertilizer can be applied in February or March before they bloom. Generally 1 to 2 pounds of 10-10-10 fertilizer per year for the 1 st ten years is adequate. For trees over 10, 5 to 10 pounds maybe needed. If you are getting a lot of new growth over 2 feet, you are applying too much and need to cut back. Excessive rates of nitrogen fertilizers increases fire blight problems. Many times you only need to fertilizer very 2 to 3 years. Lime will be needed to keep the ph around 6 to 6.5 and to supply calcium and magnesium.

Rootstocks and Variety Selection

Standard trees which are 18 to 25 feet in height and dwarfing rootstocks are available. Quince rootstocks, which are dwarfing are not recommended because they are weak rooted. OH xF333

produces semi-dwarf trees which are more winter hardy and blight resistant then quince rootstocks.

Since most pear varieties are self-sterile, you need to plant at least 2 varieties of the same type of pears. Asian pears don't pollinate European pears. Honeysweet is one exception it is self-fruitful and can be planted by itself, although it is more productive when planted with another variety. Bartlett and Seckel pears will not cross pollinate each other and would require a third variety. To avoid fire blight, select resistant varieties like Harrow, Delight, Honeysweet, Harvest Queen, Moonglow, or Magness. Bartlett, Bosc, Anjou, Aurora and Highland produce high quality fruit but can be very short lived because of fire blight.

The Asian pears are gaining in popularity. The look and taste more like an apple. The green varieties tend to be more tart, where as, yellow varieties are sweeter. They have the same problems as the European pears. Varieties to try are Ichiban Nashi, Shinseiki, Shinko, and Hosui.

To insure pollinations select varieties that bloom at the same time that have viable pollen. Pear flowers low sugar content and bloom early. Honeybees prefer other flowers which are richer in sugar. The orchard mason and Japanese hornface bees may be more efficient pollinators and take less care then honeybees

Pruning

Mature pears should be lightly pruned annually to remove dead and damaged wood, as well to control growth and remove excessive to let in sunlight. Remove all suckers (limbs which go straight up) and root suckers. Young trees are pruned to space out the limbs and develop a strong tree frame work. See *Extension Home Bulletin 197*, "Pruning in the Home Garden" or online see Penn State's home fruit pages for pruning details

Pests

Pear psylla and spider mites are two of our major insect pest problems. Dormant oil application in early spring will help reduce these problems. The fruit may also be damaged by codling moth and plum curculio feeding. Imidan applied beginning with petal fall stage will control these pests. Diseases, fire blight, a bacterial disease is the most serious problem because it can kill the tree or it just kill the blossoms, twigs or leaves. Select fire blight resistant varieties to control the disease and avoid over applications on nitrogen and excessive pruning. The other pear diseases can be controlled with regular applications of an approved fungicide. See HG2'1, Apple and Pear Spray Schedule for Pests in Home Orchards" for details on materials and timing.

Thinning

All fruit trees need to be thinned to obtain consistent yields of high quality fruit. Pears like apples and peaches should be spaced 6 to 8 inches apart. Only one pear, fruit cluster should be left. The earlier the tree is thinned the larger the impact on fruit size. Thin in late May to early June.

Harvesting

European pears are harvested 7 to 10 days before they ripen on the tree. Pears that tree ripen are poor quality and will rot. The pears are picked stored in cooler until needed then brought out into a warm room (65 to 70) for about a week to ripen. They can be placed in paper to enhance ripening.

Asian pears should ripen on tree and picked as they ripen and the can be stored up 3 months at 32 degrees.