

HOME & GARDEN TIPS

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Why Fruit Trees Fail to Bear

It is particularly frustrating when trees fail to bear fruit, often for no apparent reason. However, certain characteristics of the tree and its environment, as well as cultural practices used, can have a marked effect on a tree's ability to bear fruit.

For each fruit type there is a certain age when trees can be expected to develop blossoms, a prerequisite to bearing fruit. This age is in large part, genetically controlled and can vary from two to four years for peach to four to six years for pears.

Almost all fruit trees are produced by grafting a known variety (scion) on top of a rootstock variety. Scion varieties grown on dwarfing rootstocks generally bear fruit one to two years earlier than when grown on seedling rootstocks often called standard trees. In some cases, the scion variety died before or soon after planting. A shoot originating from the rootstock often continues to develop into a tree. Such trees developing from rootstocks, particularly seedling rootstocks, may take up to eight to ten years to bear fruit. Fruit trees grown directly from seed also share this characteristic.

Most fruit trees need to be pollinated to bear fruit. Trees may bloom profusely but without sufficient pollination, they won't bear fruit. Following inadequate pollination, bloom or small fruit fail to develop and drop to the ground. Some fruit types bear fruit through self-pollination and are called self-fruitful. Others require pollen from another variety and are called self-unfruitful. Self-unfruitful types include most apple, pear, and Japanese and American plums. To pollinate adequately, two or more varieties of self-unfruitful types are planted near each other.

Climate is a factor that often limits fruit production. Extreme cold temperatures during the winter can kill flower buds, particularly if trees are not fully dormant. More commonly, fruit buds can be readily killed by spring frosts. This is particularly a problem in low areas where cold air settles. As fruit buds begin to grow and open in the spring, they become more sensitive to cold.

Factors that increase tree vigor to delay or inhibit fruit production include overuse of nitrogen fertilizer or fertile soil, excessive and incorrect pruning practices, and use of seedling versus dwarfing rootstocks.

Sometimes certain fruit trees, particularly apple, crop heavily one year and sparsely the following year. This is called biennial bearing. In this case, fruit require so much energy from the trees that flowers are not formed for the following year. Thinning fruit within 30 days after bloom easily corrects this problem.

A little detective work may reveal the reason for lack of fruit. Some, but not all, of the problems can be corrected. More importantly, a good understanding of these factors may help to avoid the frustrating scenario of a beautiful, large tree that fails to bear fruit.