

Northern Gardening Tips: When fruit trees don't bear fruit, what's the problem?

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Do you have an apple tree that hasn't produced fruit, or a berry bush with no berries? There are several reasons why fruit trees or shrubs may not bear fruit, but you can sift through the alternatives and hopefully find an answer to your particular problem.

Though I want to keep this column on the "high road," I still have to say that the first problem to consider could come under the heading of "sex and the single tree." While some trees and bushes set fruit using their own pollen, others are a bit more like people and require two to "conceive" a fruit. So the first question to ask is whether your fruit tree has ample opportunity for cross pollination. Bush fruit, including raspberries and currants, will set fruit by their own pollen. We call this being "self-fruitful." But some tree fruit, including apples, some cherries and plums, usually need cross pollination.

That means that you need at least two cultivars of the same kind of fruit to get good fruit set. Sometimes crabapples can be a good pollen source for eating apples, provided their bloom times overlap. But it gets more complicated when certain cultivars of apples are involved.

Most apple cultivars are cross-compatible. That means they are not fussy about what cultivar of apple supplies the pollen for fruit set, and you can plant almost any cultivar with any other and be fairly confident of good fruit set, so long as their bloom times overlap. But there are exceptions. Spur strains are poor pollinators for their parental types. For example, 'MacSpur McIntosh' does not work well with 'McIntosh'. And some

cultivars, among them 'Matsu', 'Spigold', 'Gravenstein', and 'Jonagold', produce sterile pollen. If you want to plant them you'll need at least three different cultivars in the planting.

How long after you plant an apple tree should you hope to have apples? There's no easy answer to this question. One factor in a tree coming into bearing is its age. As odd as it sounds, we begin counting the age at planting, so no matter if we plant a one year old tree or a three year old tree, they are both one year old, one year after planting. Generally, we figure that an apple tree should come into bearing by its third to fifth year. Plums and some other fruit may bear in their third year.

If the tree blooms but sets no fruit, the answer lies elsewhere. All fruit trees must be pollinated to produce fruit. If there are too few bees, or if the weather is stormy or cold during bloom, the bees can't do their job. Again, be sure that you have at least two cultivars of the same fruit planted within 40 feet of each other; say, a tree each of 'Haralson' and 'McIntosh' to cross-pollinate each other. And when selecting your trees, be sure their bloom period overlaps, or no cross-pollination can occur.

Apple trees are almost always grafted. Tasty apple cultivars are grafted onto rootstocks that give desirable characteristics, like cold hardiness, disease resistance or dwarfing. But the rootstock upon which the detached shoot or "scion" cultivar is grafted can compound the problem. For example, some trees on seedling rootstocks can take as long as 15 years to come into bearing, though most should be bearing by the seventh or eighth year. 'Northern Spy' is one that takes 15 years to bear, while most of our standard cultivars like 'McIntosh' and 'Gravenstein' and 'Yellow Transparent', on semidwarfing rootstocks, should come into bearing by their third to fifth year. If they haven't there's probably something wrong. Generally, the more dwarfing the rootstock, the earlier the trees might bear. Apples on full dwarf stocks, such as M9, might even bear the year after planting.

But suppose you've got two semidwarf trees, say 'McIntosh' and 'Delicious', that are 8 years old and still have not flowered. What could be wrong? Here are a couple of things to consider.

First, over-pruning young trees tends to keep them vegetative and greatly delays their bearing fruit. Prune your trees only enough to train them to the desired form, whether open center or modified leader, then leave them alone. Some people prune them back hard thinking the vigorous shoots that result are good for the tree. This is far from the truth. Those shoots are not productive and can actually harbor more insects than normal shoots. So don't over-prune.

Another reason for a delay in bearing could be over-fertilization, particularly with high nitrogen fertilizers. These promote excess vegetative growth and delay bearing. Use only enough balanced fertilizer like 10-10-10 to produce about one foot of new growth on your non-bearing tree. In other words, let the tree struggle a bit, and it'll produce better fruit.

There are other reasons for non-bearing apple trees that we won't go into here, but this year in particular, we may also see apple trees that flowered and don't fruit due to late freezes.

Source: Montana State University

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