**Pollination of fruit trees**

Fruit trees fit into the following categories

**Self-Pollinating** — trees that do not need another to complete the pollination process. Most [apricots](http://www.starkbros.com/products/fruit-trees/apricot-trees), [nectarines](http://www.starkbros.com/products/fruit-trees/nectarine-trees), [peaches](http://www.starkbros.com/products/fruit-trees/peach-trees) and [sour cherries](http://www.starkbros.com/tags/sour-cherry-trees) are typical examples of self-pollinating trees.

**Requiring a Pollinator** — trees that need to be pollinated by another variety of tree. Most [apples](http://www.starkbros.com/products/fruit-trees/apple-trees), [pears](http://www.starkbros.com/products/fruit-trees/pear-trees), [plums](http://www.starkbros.com/products/fruit-trees/plum-trees) and [sweet cherries](http://www.starkbros.com/tags/sweet-cherry-trees) are typical examples of this type of tree.

It’s also good to know that, while some trees are self-pollinating, they might have greater success when they are cross-pollinated with another.

If you are in an urban environment you probably won't need to worry about a pollination partner for your apple tree - there will usually be compatible apple trees or crab apple trees in neighboring gardens and hedgerows. Pears, plums, and cherries are a bit less widely-planted though, and you can't assume there will be others nearby.

For varieties which are not self-fertile, and require a pollination partner, the partner has to be a *different* variety of the *same* fruit species. Two trees of the same variety will not pollinate each other.

If you are in an isolated area and only want to plant one tree, choose a self-fertile variety.

If in doubt, and you have space for more than one tree of the same species (e.g. 2 apple trees or 2 plum trees), plant two compatible varieties. (If doing so, it is a good idea to choose varieties that have different *picking* times so that you have a spread of fruit through the season).

Here are some of the factors that can affect pollination:

**Species**

In general terms each species can only pollinate others of its own kind - apples will only pollinate other apples, pears will only pollinate pears, and so on.

Amongst apples there is generally no distinction between crab apples, cider apples, and mainstream apples - they can all potentially cross-pollinate each other.

Things are less clear with plums. European plums can inter-pollinate with closely-related species such as damsons, mirabelles and cherry plums. European plums cannot generally cross-pollinate with Japanese plums.

Sweet and Acid cherries are also different species but can cross-pollinate each other - but usually cannot be pollinated by ornamental flowering cherries.

**Blossom time**

For most fruit varieties, pollination is carried out by insects, often bees. Since pollination happens in early spring, good weather which will encourage bees can be a factor.

Pollination also depends on having blossom to be pollinated - which is why the risk of late frosts which can damage blossom is sometimes a concern. Frosts just after pollination can also damage the first stages of fruit formation.

Temperatures at blossom time are also very significant for effective pollination. Pollen germination in apples works best at temperatures in the range 60F-70F. If you are in an area where spring temperatures are less than this you will need lots of pollinators and/or varieties that can germinate pollen at lower temperatures. Bad spring weather can prevent effective pollination, it is useful to know that you only need 1-2 fine warm days during the bloom period for pollinating insects to come out and for flowers to be successfully pollinated.

**Flowering / Pollination Time**

One of the easiest and simplest ways to see if two varieties could pollinate each other is to check their pollination or flowering time. When do they flower? The flowering times are not the only factor in determining compatibility between varieties, but they are a good starting point.

The concept is simple - each fruit group contains varieties that flower at around the same time. This works for apples, pears, and most plums. Pollination is most likely to be successful with two varieties that are in the same flowering group/time.

In cool temperate climates where spring lasts many weeks, you can assume that varieties in neighboring flowering groups will also be compatible because the flowering will overlap. In continental climates where the transition from winter to summer happens very quickly, such as much of the USA, you can assume that varieties even two groups apart will probably still overlap and therefore have the potential to cross-pollinate.