

POLLINATION NEEDS OF THE HOME ORCHARD



Modern fruit plants have many fine qualities that make them easy to grow in the home orchard. Most require only the occasional spraying and pruning in order to produce. Some varieties produce well even if only one tree is planted. Others do much better if they have a pollination partner. The following information should help you make the right 'marriage' in your orchard for abundant fruit production.

Pollination is explained as the transfer of pollen from the anther of one flower to the stigma of the same flower or a different one. This process is essential for fruit production.

SELF POLLINATION occurs if the pollen is from flowers on the same plant or from a second plant but of the same variety. One tree does it - ample fruit will be produced.

CROSS POLLINATION occurs if the pollen comes from flowers from a different plant and of a different variety. Two trees are needed or fruit set.

GOOD POLLINATION depends on the following:

1. Good soil fertility. Don't overfertilize with nitrogen and be sure plenty of phosphorus is available from bone meal, super-phosphate, etc.
4. Proper climatic conditions - warm, dry, etc.
5. Best not to sprinkle water on blooms; frost protection may have to be provided.
6. For cross pollination, the two trees should be planted in the same vicinity - 50 feet apart.
7. For good cross pollination, the two trees should bloom at the same time.
8. For cross pollination, the two different varieties must be the correct ones - see details below.
9. Bees are absolutely needed for pollination.
 - a. Bees work in the early, cooler part of the day. Do not disturb them!
 - b. Bees are killed by insecticides - no spraying during bloom time.
 - c. Bees do almost all the pollination! Protect them!
 - d. Bees tend to visit only two trees per trip from the hive - plant trees for cross pollination close together.
 - e. Bees are detracted from fruit trees by weedy flowers. Keep area weed free!

NOTE

1. Commercial pollination needs may differ from those of the home orchard.
2. All fruiting is improved with a mix of pollen from more than one tree whether the tree is self pollinating or needs cross pollination. More fruit, higher quality and larger fruit can be expected with the presence of other pollen sources.
3. Sometimes a bouquet of blooms (picked from a different tree) placed in water and hung in the tree to be pollinated is very effective. The bees don't know the difference.
4. A second variety grafted onto the first one is possible for cross pollination purposes.

POLLINATION:

APPLES

1. All apples do best when cross pollinated - two trees of two different varieties.
2. Four 'varieties' that seem to do very well when D.Q1 cross pollinated: All Golden Delicious 5- in -1 and 4- in -1, Starks Jon-A-red and Red Rome Beauty.
3. Research now indicates that some varieties of crabapple are good pollinators for apple trees.
4. Some apple varieties that provide good pollen for cross pollination: All Golden Delicious, Red Rones, Red Delicious, McIntosh, Yellow transparents, all Jonathans and Grimes Golden.
5. Some apples that will not pollinate themselves or pollinate any other variety: Blactwin, Gravsnsstein, Mutsu, all Winesaps, Winespurs, Double Red Staymen, Spigold and Sir Prize.
6. Three disease resistant varieties need special pollination: Sir Prize, Priscilla and Prima. Cross pollinate Prima and Priscilla with each other. Use either to pollinate Sir Prize.
7. All crabapples are self pollinating.
8. Cross pollination in apples is best accomplished with two very distinct varieties like Jonathan X Lodj but not Jonathan X Jonalicious.

APRICOTS

1. Self pollinating.
2. 'Sungold' variety should be cross pollinated with 'Moongold'.

BLUEBERRIES

1. Best to cross pollinate with a second variety.



CHERRIES

1. All SOUR cherries (Montmorency, Meteor, North Star, etc.) are self pollinating. Sour cherries WILL NOT pollinate sweet varieties.
2. Almost all SWEET cherries (Van, Bing, Viva, Black Tartarian and others) need cross pollination with a different variety of sweet cherry.
 - a. 'Stella' is self pollination.
 - b. 'Stella' is a good pollinator for sweets ..
 - c. 'Van, Stark Gold and Black Tartarian' are especially good pollinators for other varieties.
 - d. Cross all Schmidt's with 'Bing or Napoleon'.
 - e. Do not cross Gold with Viva, Bing or Napoleon.
 - f. Cross Van with Bing or Napoleon.
 - g. Black Tartarian seems self pollination but it is still best to cross pollinate with a different variety.

ELDERBERRIES

1. Best to cross pollinate with a second variety.

NECTARINES

1. All nectarines are self pollinating and can be pollinated by and pollinate all peaches.

NUTS

1. Self pollinating types: Black Walnut, Butternuts, Persian Walnuts.
2. Nuts needing cross pollination with a different variety of that type of nut (Hickory will not pollinate Filbert, etc.): Chestnuts, English Walnuts and Hickories.

PEACHES

1. Self pollinating.
 2. Exception: JH Hale and Halberta. Cross pollinate with any other peach.
3. Peaches and nectarines will cross pollinate with each other.

PEARS

1. Best to cross pollinate all pears with a different variety.
2. Bartletts are best pollinated by Anjou or Bosc.
3. Magness needs cross pollination ('Moonglo' is good) and Magness with NOT pollinate *any* other variety.
4. These three cannot cross pollinate each other: Stark Jumbo, Bartletts and Seckel.
5. Duchess is self pollinating.
6. Good pollinators for other varieties: Bartletts, Moonglo and Starking Delicious.

PLUMS AND PRUNES

1. The three groups of plums are the following:

JAPANESE
Abundance
Burbank Plum
Delicious Methley
Plum' Redheart
Santa Rosa
Satsuma (pollinate with Santa Rosa)

EUROPEAN
Green Gage'
President
Stanley Prune Starks Giant
Damson Plum Starks Blufers
Plum" Starks Fellenburg
Stanley German Prune" Valor

AMERICAN
Superior
Waneta

2. Those marked with an asterisk are often considered self pollinating.
3. Best to cross pollinate all plums and they must be pollinated by a variety from the same group.

SELF POLLINATION

1. All of the following are self pollinating: Blackberries, Boysenberries, Currants, Crabapples, Dewberries, Figs, Gooseberries, Grapes, Quince, Strawberries and Raspberries.

