

## POLLINATION OF FRUIT TREES

In order for fruit to develop, *pollination* must occur at blossom time. Pollination is the transfer of pollen from the male part of the flower to the female part of the flower. Some types of fruit trees may be pollinated with their own pollen and are considered *self-fruitful* or *self-pollinating*. Other types of trees require pollen from a different variety of the same type of tree and are considered *self-unfruitful*. The transfer of pollen from one variety to a different variety of the same type of tree is called *cross-pollination*. *Cross-pollination* is essential for apples, pears, most sweet cherries, and most Japanese plums. *Cross-pollination* is **not essential**, but does **improve the number of fruit** that form on apricots, European plums/prunes, tart cherries, peaches and nectarines.

Pollen is primarily transferred by honeybees. Trees placed more than 100 feet away may result in poor pollination. Bees work best when temperatures above 65°F. Cool weather, rain or winds may prevent bees from leaving their hives. Most pesticides are toxic to bees and should not be used during bloom time.

### APPLES

The best way to insure a good apple crop is to provide adequate **cross pollination** of two or more varieties. Flowering crabapples are becoming a popular pollination method with commercial growers. Bloom times are generally longer than other apple species and crabapples are easily cared for. If varieties of crabapples are not available locally they may be mail ordered from the list at the end of this publication.

### APPLE CROSS-POLLINATION TABLE (page 2)

#### Directions for use:

1. Select a cultivar you are interested in growing from left hand column.
2. Check across chart. Blank squares indicate poor pollinizers.
3. Select a cultivar from list above a square marked with an **X**.

#### Key

- X** Acceptable Pollinizer
- O** Partially self-fruitful, but a pollinizer is suggested.
- Should not be relied upon as a pollinizer for this cultivar.

#### Non Pollinators

Baldwin	King
Gravenstein(s)	Mutsu
Jonagold	Winesap(s)

#### Good Pollinators

Dolgo Crabapple	Whitney Crabapple
Manchurian Crabapple	Wickson Crabapple
Snowdrift Crabapple	

	Akane	Braeburn	Cortland	Empire	Fuji	Gala	Golden Delicious	Honey Crisp	Jonagold	Jonamac	Jonathan	Lodi	McIntosh	Paulared	Red Delicious	Red Gravenstein	Spartan	Tydemans's Early	Tydemans's Red	Winter Banana	Yellow
Akane		X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
Braeburn	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
Cortland	X	X		X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
Empire	X	X	X		X	X	X			X	X	X	X	X	X		X	X	X	X	X
Fuji	X	X	X	X		X	X	X		X	X	X	X	X	X		X	X	X	X	X
Gala	X	X	X	X	X			X		X	X	X	X	X	X		X	X	X	X	X
Golden Delicious	X		X	X			O	X		X	X	X	X	X	X		X	X	X	X	X
Honey Crisp	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X	X	X	X
Jonagold	X	X	X	X	X	X		X		X	X	X	X	X	X		X	X	X	X	X
Jonamac	X	X	X	X	X	X	X	X			X	X	X	X	X		X	X	X	X	X
Jonathan	X	X	X	X	X	X	X	X		X		X	X	X	X		X	X	X	X	X
Lodi	X	X	X	X	X	X	X	X		X	X	O	X	X	X		X	X	X	X	X
McIntosh	X	X	X	X	X	X	X	X		X	X	X		X	X		X	X	X	X	X
Paulared	X	X	X	X	X	X	X	X		X	X	X	X		X		X	X	X	X	X
Red Delicious	X	X	X	X	X	X	X	X		X	X	X	X	X			X	X	X	X	X
Red Gravenstein	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
Spartan	X	X	X	X	X	X	X	X		X	X	X	X	X	X			X	X	X	X
Tydemans's Early	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
Tydemans's Red	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	O	X	X
Winter Banana	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X		X
Yellow Transparent	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	O

## PEARS

Pears require another cultivar for **cross-pollinization**. European and Asian pears will **cross-pollinate** if blooming at the same time.

Directions for use of the following charts:

1. Select a cultivar you are interested in from the left hand column
2. Check across the chart for a compatible pollinizer.

### PEARS

### COMPATIBLE POLLINIZERS

<b>Bartlett</b>	<b>d'Anjou - Bosc - Comice</b>
<b>Bosc</b>	<b>Bartlett - Comice - d'Anjou - Seckel</b>
<b>Comice</b>	<b>Bartlett- Bosc- d'Anjou- Seckel</b>
<b>d'Anjou</b>	<b>Bartlett-Bosc- Comice- d'Anjou- Seckel</b>
<b>Seckel</b>	<b>Bosc - Comice - (Bartlett is not compatible)</b>

**ASIAN PEARS****COMPATIBLE POLLINIZERS**

<b>Chojuro</b>	<b>Shinseike - Bartlett</b>
<b>Nijisseiki (Twentieth Century)</b>	<b>Chojuro - Shinseike - Bartlett</b>
<b>Hosui</b>	<b>Partially self-fruitful. Any other pear in same bloom time will pollinate.</b>
<b>Shinseike</b>	<b>Chojuro</b>

**PLUMS / PRUNES**

Most European type plums will set fruit with their own pollen, but will produce better crops with pollinizers nearby. Except for Santa Rosa which is partially self-fertile, all Japanese plums require a pollinizer

**Directions for use of the following charts**

1. Select a cultivar you are interested in from the left hand column
2. Check across the chart for a compatible pollinizer.

**EUROPEAN PLUMS /PRUNES****COMPATIBLE POLLINIZERS**

<b>Damson</b>	<b>Self-fertile - Green Gage - Stanley</b>
<b>Earliblue</b>	<b>Green Gage - Stanley - Italian</b>
<b>Green Gage (Reine Claude)</b>	<b>Self-fertile - Stanley - Damson - Earliblue - Italian</b>
<b>Italian</b>	<b>Self-fertile - Green Gage- Stanley- Damson- Earliblue</b>
<b>Stanley</b>	<b>Self-fertile - Green Gage - Damson- Earliblue - Italian</b>

**JAPANESE PLUMS****COMPATIBLE POLLINIZERS**

<b>Burbank</b>	<b>Santa Rosa - Shiro - Satsuma</b>
<b>Elephant Heart</b>	<b>Santa Rosa</b>
<b>Santa Rosa</b>	<b>Self Fertile - Shiro- Satsuma - Burbank</b>
<b>Satsuma</b>	<b>Santa Rosa - Shiro - Burbank</b>
<b>Redheart or Wickson</b>	<b>If available these are excellent pollinizers</b>

**CHERRIES**

Sweet cherries except the new **self-fertile** types (Stella, Compact Stella) require **cross-pollination** between two different cultivars. Some cultivars are not compatible with each other or may not overlap sufficiently in bloom period. Tart or sour cherries are **self-fertile** and do not need a pollinator. They are capable of fertilizing sweet cherries but generally bloom too late to be considered dependable pollinizers.

**CHERRIES, (SWEET)****COMPATIBLE POLLINIZERS**

<b>Bing</b>	<b>Sam - Van - Montmorency -Rainer - Stella- Compact Stella - Garden Bing</b>
<b>Lambert</b>	<b>Sam - Van - Montmorency - Rainer - Stella -Compact Stella - Garden Bing</b>
<b>Rainer</b>	<b>Sam - Van - Bing - Royal Ann - Lambert - Montmorency - Stella -Compact Stella - Garden Bing</b>
<b>Royal Ann</b>	<b>Sam - Van - Montmorency - Rainer - Stella- Compact Stella - Garden Bing</b>
<b>Stella, Compact Stella, Garden Bing</b>	<b>Self - fruitful</b>
<b>Van</b>	<b>Sam - Bing - Royal Ann- Lambert- Montmorency- Rainer- Stella - Compact Stella - Garden Bing</b>
<b>Montmorency (Sour)</b>	<b>Self-fruitful</b>

**APRICOTS**

Many apricots such as ‘Tilton’ are self-fruitful. Provide another variety for Goldrich, Moorpark and Perfection. Rival requires an early blooming pollinizer such as Perfection for best results.

**PEACHES**

Most varieties of peaches and nectarines are self-fertile. However those with Hale in their parentage will require another variety as a pollinizer. Examples are ‘Early Hale’ and Hale Haven’.

**TREE FRUIT CATALOG NURSERY/CATALOG LIST****Bear Creek Nursery**

P.O Box 411  
Northport, WA 99157  
98807

Specialties: Hardy fruit trees, old varieties

**Joseph Klein Nursery**

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Specialty: Asian Pear

**Van Well Nursery**

P.O Box 1339  
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(509) 663-8189

**C & O**

P.O Box 116  
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(509) 622-7164

**Raintree Nursery**

391 Butts Rd  
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(206) 496-6400

**Carlton Nursery**

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(509) 248-7390

**Stark Brothers' Nursery**

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