

Pollination for Apples: Bloom Periods

Pollination for Apples: Bloom Periods – Over 3,100 varieties and their bloom periods listed. Nature did not plan this pollination key. To use the key, find two varieties in the same groupings, A, B, C, or D. Some bloom periods, for some varieties, overlap others, but in general, a high degree of pollination will occur by following the key.

The following symbolism is used for bloom periods:

(A) Early flowering

(AT) Early flowering triploid (sterile)

(ATetr) Early flowering tetraploid (fertile)

(B) Mid-season flowering

(BT) Mid-season flowering triploid (sterile)

(BTetr) Mid-season flowering tetraploid (fertile)

(C) Late mid-season, late flowering

(CT) Late mid-season, late flowering triploid (sterile)

(CTetr) Late mid-season, late flowering tetraploid (fertile)

(D) Very late flowering

(DT) Very late flowering triploid (sterile)

(DTetr) Very late flowering tetraploid (fertile)

In general, all apples require a pollinator. Living in an urban area you might get by without one (See HOS publication, Self Fertile Apples), but better fruit set is obtained with another apple tree for pollination. Successful fruit set is a two step process; pollination, transfer of pollen from male part of flower (stamen), followed by double fertilization, fusing of sperm to egg forming an embryo and fusion of sperm to nucleus forming endosperm, nutrient for the developing embryo. Pollen tube growth is temperature dependent, if the weather turns cold, fertilization may not occur even though pollination occurred.

Different apple varieties bloom at different times, therefore, you need another variety that will bloom at nearly the same time to insure cross-pollination. Another factor to keep in mind for pollination, apple blossoms have a ten-day period in which pollination may occur.

Some apples are triploid (T). They have three chromosomes per cell instead of the normal two chromosomes per cell. They are pollen sterile (See HOS publication, Apples: Triploid Cultivars). If you select a triploid apple variety you will require two non-triploid trees, one to pollinate the triploid and the other two to pollinate each other. Tetraploid, four chromosomes per cell are fertile and present no unique pollination problems.

POLLINATION GROUPS: A KEY

Best pollination results would be to select two varieties in the same groupings, A, B, C, or D. since some cultivars of apple bloom over extended periods You may select cultivars from A and B, B and C, C and D. Cultivars from A and B will not pollinate cultivars from D and visa versa. Nature did not plan this pollination key. Some bloom periods, for some varieties, overlap others, but in general, you will have a high degree of pollination and increased fruit set if you follow the key below.

-----	'Belfleur Krasnyi' (A)
	'Belle Fille de la Manche' (A) (Cider)
(A) Early flowering	'Ben's Red' (A)
(AT) Early flowering triploid	'Besemyanka Michurina' (A)
(sterile)	'Bietigheimer' (A)
(ATetr) Early flowering tetraploid	'Black McIntosh' (A)
(fertile)	'Black Mickey' (A)
	'Blackmack' (A)
'A. D. W. Atkins' (A)	'Blutrotten' (A)
'Acey Mac' (A)	'Bolero' (A)
†'Akerö' (A)	'Bonza' (A-B)
'Alexis' (A)	†'Bottle Greening' (A)
†'Alkmene' (A)	'Bountiful' (A-B)
'All-Red Gravenstein' (AT)	*†'Braeburn' (C - in Western Oregon and Washington; A - elsewhere)
'Ambro' (A)	†'Braeburn; Hilwell Strain' (A)
'American Summer Pearmain' (A)	'Braddick's Nonpareil' (A)
'Ames' (A)	'Breakey' (A)
'Anna' (A)	'Breakwell's Seedling' (A-B-C)
'Aromatic Russet' (A-B)	(Cider)
'Astrachan, Large Fruited' (A)	'Breedon Pippin' (A)
†'Astrachan, Red' (A)	'Brimley Bittersweet' (A) (Cider)
'Astrachan, White' (A)	'Broxwood Foxwhelp' (A) (Cider)
	'Bulmer's Norman' (AT) (Cider)
'Bakers Delicious' (A)	'Buzával Erö Alma' (A)
†'Bancroft' (A)	
'Batul-Alma' (A)	
'Bébé Rose' (A)	'Caravel' (A)
'Beeley Pippin' (A)	'Cardinal' (A)

'Carlisle Codlin' (A)
 'Carlton' (A)
 'Caroline Hopkins' (A) some (C)
 'Carter's Blue' (A)
 'Ceeval' (A)
 †'Chehalis' (A)
 'Chestnut' (A) (Crab)
 'Chick-A-Dee McIntosh' (A)
 'Chilo' (A) (Crab)
 'Cidor' (A) (Cider)
 'Christmas Pearmain' (A)
 'Cidor' (A) (Cider)
 'Cleeve' (A)
 'Clivia' (A)
 'Close' (AT)
 'Clydesdale' (A)
 'Cooper's Seedling' (A)
 'Coul Blush' (A)
 'Court Royal' (AT) (Cider)
 'Cowichan' (A) (Crab)
 'Crăciunesti' (A)
 'Crimson Gravenstein' (AT)

'Dalili' (A)
 'Dandee Red'TM (A)
 'Dark Red Gravenstein' (AT)
 'Daru Sövári' (A)
 †'Davey' (A)
 'Dearborn's Unknown' (A)
 'Delgollune' (A)
 'Delnimb' (A)
 'Delprim' (A)
 'Delvale' (A)
 'Dermen McIntosh' (A Tert)
 'Devon Crimson Queen' (A)
 †'Devonshire Quarrenden' (A)
 'Directeur Lesage' (A)
 †'Discovery' (A)
 †'Dolgo Crab' (A)
 'Domnesc' (A)
 'Dorsett Golden' (A)
 'Double Red McIntosh' (A)
 †'Duchess of Oldenburg' (A)

†'Duchess of Oldenburg, Red' (A)
 'Duchess, Red' (A)
 'Dudley' (Dudley Winter') (A)
 'Duégne' (A)
 'Dunkelroter Gravensteiner' (AT)
 'Dunn's Seedling' (A)
 'Dymock Red' (A) (Cider)

'Earl Cowper' (A)
 †'Earligold' (A)
 †'Early Red Bird' (A)
 'Eastbourne Pippin' (A)
 †'Egremont Russet' (A)
 'Elektra' (A)
 'Elton Beauty' (A)
 'Emerald Spire' (A)
 *†'Empire' (A)
 'Ernst Bosch' (A)
 *†'Erwin Baur' (A)
 'Essching' (A)
 'Etlins Reinette' (A)
 'Eustis' (A)

†'Fall Russet' (A)
 'Fameuse' (A)
 'Fameuse, Red' (A)
 'Fantazja' (A)
 'Fiessers Erstling' (A) some (C)
 'Foulkes Foremost' (A)
 'Foxwhelp' (A) (Cider)
 'Frau Margarete Von Stosch' (A)

'Geheimrat Doktor Oldenburg' (A)
 'Genet Moyle' (AT)
 'George Neal' (A)
 'Gibbs Golden Gage' (A) (Crab)
 'Glogerovka' (A)
 'Glory of England' (A)
 'Gold Medal' (A)
 'Gold Reinette' (A)
 'Golden Royal' (A)
 'Golden Russet' (A)
 'Golden Spire' (A) (Cider)



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