



## Flowering Crabapple

### *Malus* spp.

*Alex X. Niemiera, Professor, School of Plant and Environmental Sciences, Virginia Tech*

In the flowering crabapple realm, there are many species and hybrids, and literally hundreds of cultivars in the trade. A crabapple (*Malus* spp.) has fruits that are  $\leq 2$  inches in diameter; plants with fruits large than 2 inches are considered apples. This article will collectively describe flowering crabapples although significant differences in size, form, flower, fruit, foliage, and disease resistant characteristics exist. These differences will be noted in the appropriate category; a few cultivars will be noted in the Additional Information section.

#### **Summary:**

Foliage: Variable but usually about 1 to 2 inches long; deciduous

Height: Variable but usually 15 to 25 feet

Spread: Variable but usually 15 feet

Shape: Variable; includes, rounded, vase-shape, oval, pendulous, narrow upright

Main features: Very few trees can match the amazing splendor of a flowering crabapple in full flower. There are hundreds of flowering crabapples cultivars in the trade; these vary greatly in their aesthetic, size and shape, and disease resistance characteristics. Despite this variation, crabapples are typically small trees with a most attractive two-week flower display that, depending on cultivar and location, starts in April and ends in early June. Just prior to flower bud opening, buds swell (ballooning) and typically show a different color (white, pink, or red) than the open flower petals which can be white, or shades of pink, carmine, red, or rose. The relatively showy ballooning stage and open flower stage will provide at least three to four weeks of glorious color. Plant size, growth rate, fruit, foliage, and disease resistance also varies with cultivar.

Crabapple tree shape can be round, spreading, oval, upright narrow, vase-shape, or pendulous. Branch structure for many cultivars is quite attractive due to a picturesque gnarly characteristic. Fruit display can be quite attractive; fruit vary in size (pea size to 2 inches), color (red, yellow, orange, green), and persistence (lasting a few weeks to several months). Many crabapple cultivars bear heavy fruit loads every other year (alternate-year bearing cycle) and sparse loads in intervening years. Despite the relevance of the aforementioned aesthetic characteristics, the number one cultivar selection criterion is disease resistance.

Crabapples are susceptible to four diseases, some of which can render a cultivar functionally useless (ragged looking and in poor health) in a landscape. These diseases are fire blight, scab, rust, and powdery mildew. Fire blight is a very serious bacterial disease that, depending on weather conditions and cultivar susceptibility, can kill branches or most of the tree. Scab, rust, and powdery mildew are fungal diseases; scab and rust can defoliate a tree (partly to mostly) and render fruit unsightly, thus scab and rust resistance is quite important. While not as serious a problem as the other diseases, powdery mildew can disfigure leaves and significantly reduce tree vigor.

Japanese beetles feed on leaves and will significantly affect tree health. Thus, when selecting a flowering crabapple cultivar, one must first consult a list of cultivars with disease resistance ratings (as well as proneness to Japanese beetles).

Crabapples are propagated by grafting; some cultivars are prone to produce suckers (shoots from the root system) that will be atypical of the cultivar characteristic. Suckers need to be removed to maintain the cultivar characteristic as well as to maintain a kempt appearance.

Lists that can be checked for aesthetic characteristics and disease resistance include:

Superior Crabapple Trees for the Landscape (North Carolina State University)

<http://www.ces.ncsu.edu/depts/hort/hil/hil-8613.html>; Crabapples – A Selection Guide (Michigan State University) <http://web2.canr.msu.edu/bulletins/Bulletin/PDF/e2177.pdf>; Crabapple Information Chart (J. Frank Schmidt & Son Company)

[http://www.jfschmidt.com/pdfs/JFS\\_CRAB\\_CHART.pdf](http://www.jfschmidt.com/pdfs/JFS_CRAB_CHART.pdf); Crabapples for the Home Landscape (The Morton Arboretum) <http://www.mortonarb.org/tree-plant-advice/article/858/crabapples-for-the-home-landscape.html>. One should keep in mind that disease rankings are often region/climate dependent; disease rankings from the Midwest are not necessarily applicable to the Southeast US (and vice versa). Crabapples are relatively tough landscape plants. If provided with a well-drained acid soil (some authors note tolerance to alkaline soils), then they will tolerate drought stress and other urban conditions once they become established.

#### **Plant Needs:**

Zone: 4 to 7 (for most cultivars) Light: Full sun

Moisture: Average to dry

Soil type: Well drained

pH range: Acid

#### **Functions:**

Crabapples can serve as a specimen plant, be used in groupings, as a border, or anywhere a small tree species is appropriate. The variety of forms (i.e., round, oval, vase-shape, wide-spreading, columnar, weeping) and sizes (i.e., 8 to 30 feet tall) allow crabapples to be used in a wide array of landscape functions. They are particular striking when used in mass.

#### **Care:**

In addition to removing suckers (shoots from below the graft union), pruning may be needed to remove conflicting branches and water sprouts (vigorous shoots), or to thin out the canopy. If one needs to prune, then this must be accomplished soon after flowering has ceased. If one waits too long after that time, then they run the risk of removing the flower buds produced for the following spring. If flowering crabapples are planted near a sidewalk or other paved surface, then fruit drop may be a maintenance issue.

#### **Additional Information:**

There is steady stream of new-to-the-trade flowering crabapple introductions. Here are a few cultivars that show up on published lists that are highly ranked for disease and/or aesthetics characteristics. One should keep in mind that disease rankings are often region/climate dependent.

'Adams' 20 feet tall; rounded form; rose colored flowers; dark red persistent fruit

'Adirondack' 20 feet tall; columnar; white flowers; orange-red fruit

'David' 15 feet tall; rounded; white flowers; scarlet-red persistent fruit

'Donald Wyman' 20 feet tall; rounded form; white flowers; persistent red fruit

'Excalibur' 8 feet tall; rounded form; white flowers; persistent yellow fruit

Firebird® 8 feet tall; rounded-spreading form; white flowers; persistent red-orange fruit *Malus*



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*floribunda* 20 feet tall; spreading form; white flowers; yellow/red fruit  
'Jackii' 25 feet tall; rounded form; white flowers; persistent but sparse red fruits  
'Louisa' 15 feet tall; weeping form; pink flowers; yellow fruit  
'Mary Potter' 8 feet tall; shrub form, pink flowers; red fruit  
Molten Lava™ 12 feet tall; broad-weeping form; white flowers; orange-red persistent fruit  
'Ormiston Roy' 20 feet tall; upright-spreading form; white flowers; orange-yellow fruit  
'Prairifire' 20 feet tall; rounded form; dark red flowers; purplish-red fruit  
'Professor Sprenger' 20 feet tall; upright-spreading form; white flowers; dark red persistent fruit  
Red Jewel™ 12 feet tall; weeping form; white flowers; red persistent fruit  
'Royal Raindrops' 20 feet tall; rounded form; burgundy-red flowers; red-purple fruit  
'Sentinel' 20 feet tall; columnar form; white flowers; dark red persistent fruit  
'Strawberry Parfait' 20 feet tall; vase-shaped form; pink flowers; yellow fruit  
Sugar Tyme™ 20 feet tall; upright spreading; white flowers; persistent red fruit  
'Tina' 5 feet tall; spreading mound form; white flowers; red-purple fruit

