**Malus x ‘Red Jewel’: ‘Red Jewel’ Crabapple¹**

Edward F. Gilman and Dennis G. Watson²

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**Introduction**

‘Red Jewel’ Crabapple is grown for its splendid white flowers and attractive, brilliantly-colored red fruit. The tree grows to only 15 feet tall with an irregular, oval crown form making this cultivar well suited as an ornamental or small street tree. Since the tree branches low to the ground, lower branches need to be removed as the tree grows larger to allow for pedestrian and vehicular clearance along a street or walkway. As with many of the Crabapples, specify tree form plants if using it as a street tree.

**General Information**

**Scientific name:** *Malus x*

**Pronunciation:** MAY-lus

**Common name(s):** ‘Red Jewel’ Crabapple

**Family:** Rosaceae

**USDA hardiness zones:** 4A through 8A (Fig. 2)

**Origin:** not native to North America

**Invasive potential:** little invasive potential

**Uses:** espalier; street without sidewalk; highway median; tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; urban tolerant; parking lot island < 100 sq ft; parking lot island 100-200 sq ft; parking lot island > 200 sq ft; sidewalk cutout (tree pit); specimen; Bonsai

**Availability:** not native to North America

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**Description**

- **Height:** 12 to 15 feet
- **Spread:** 10 to 15 feet
- **Crown uniformity:** irregular
- **Crown shape:** oval, vase
- **Crown density:** moderate
- **Growth rate:** slow
- **Texture:** medium

**Foliage**

- **Leaf arrangement:** alternate (Fig. 3)
- **Leaf type:** simple
- **Leaf margin:** serrate, serrulate, crenate
- **Leaf shape:** elliptic (oval)
- **Leaf venation:** pinnate, brachidodrome
- **Leaf type and persistence:** deciduous
- **Leaf blade length:** less than 2 inches, 2 to 4 inches
- **Leaf color:** green
- **Fall color:** yellow
- **Fall characteristic:** not showy

*Figure 3. Foliage*

**Flower**

- **Flower color:** white/cream/gray
- **Flower characteristics:** very showy

**Fruit**

- **Fruit shape:** round
- **Fruit length:** less than .5 inch
- **Fruit covering:** fleshy
- **Fruit color:** red
- **Fruit characteristics:** does not attract wildlife; showy; fruit/leaves not a litter problem

**Trunk and Branches**

- **Trunk/bark/branches:** branches droop; not showy; typically multi-trunked; thorns
- **Pruning requirement:** little required
- **Breakage:** resistant
- **Current year twig color:** brown, reddish
- **Current year twig thickness:** thin, medium
- **Wood specific gravity:** unknown

**Culture**

- **Light requirement:** full sun
- **Soil tolerances:** sand; loam; clay; acidic; alkaline; well-drained; occasionally wet
- **Drought tolerance:** moderate
- **Aerosol salt tolerance:** low

**Other**

- **Roots:** not a problem
- **Winter interest:** yes
- **Outstanding tree:** no
- **Ozone sensitivity:** unknown
- **Verticillium wilt susceptibility:** resistant
- **Pest resistance:** resistant to pests/diseases

**Use and Management**

Plants are used for specimens, patios, and along streets to create a warm glow of color each spring. They are attractive during the summer, bearing glossy green foliage. Popular around overhead powerlines due to their small stature, a row of Crabapples along each side of the street or median strip can “make” a neighborhood. Select plants which have been grafted onto EMLA 106 or 111 rootstock to reduce root suckering.

Crabapple is well-adapted to compacted urban soil, tolerates drought and poor drainage well and is somewhat tolerant of salt-spray. Well adapted to all areas within its hardiness zone range, including Texas and Oklahoma. A very adaptable tree. Do not overfertilize since this could increase the incidence of disease. ’Red Jewel’ is resistant to disease, but slightly susceptible to powdery mildew. Crabapples are best grown in a sunny location with good air circulation and have no particular soil preferences, except soil should be well drained. Root-pruned trees transplant most easily.

According to the Ornamental Crabapple Society, Crabapples adapted for street tree and urban use include `Adams', `Bob White', `David', `Donald Wyman', `Profusion', `Red Splendor' and *Malus floribunda*. Be sure to specify tree form plants for street tree use since branching may be too low on trees grown for specimen use. Crabapples grow well in the Texas panhandle but are not extremely drought tolerant and are not well suited for high pH soil. Contact the Ornamental Crabapple Society, Morton Arboretum, Lisle, Illinois 60532 for more information on Crabapples.

White flowered cultivars include: `Baccata Columnaris' - narrow crown, white flowers, red or yellow fruit; `Baccata
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Gracilis' - slow-growing, shrub-like, white flowers, fruit small and dark red, annual bearer; 'Baccata Jackii' - upright form, white flowers, bright red fruit, annual bearer, also good to excellent disease resistance; 'Callaway' - pink buds, white flowers, red fruit; 'David' - pink buds open to white flowers, scarlet fruit, good to excellent disease resistance; 'Dolgo' - pink buds, white flowers, large red fruits; 'Donald Wyman' - disease-resistant but susceptible to fire blight, glossy red showy fruit; 'Ellwangeriana' red fruit, disease-resistant; 'Floribunda' - pink to red bud opens to single white flower, yellow or red fruit commonly available; 'Gloriosa' - pink bud opens to white flower, red, large fruit; 'Golden Hornet' - upright arching habit, white flower, yellow fruit; 'Gorgeous' - pink bud opens to large, white flower, red to orange fruit; 'Harvest Gold' - white flowers followed by yellow fruits; 'Hupehensis' - Tea Crabapple - pink buds open to white flowers, greenish fruit; 'Katherine' - double flowers opening pink, fading to white, fruit yellow and red; 'Mary Potter' - pink buds open to single white flowers, red and fairly large fruit, susceptible to scab and powdery mildew; 'Red Jade' - weeping habit, white flowers, red fruit persisting after leaves drop; 'Sargentii' - dwarf, pink bud opens to white flowers, small dark red fruit; 'Snowdrift' - white flowers, orange red fruit; 'Tanner' - white flowers, red fruits, susceptible to diseases; 'Tschonoski' - white flowers, vigorous growth, good bronze red fall color, fruit brownish; 'White Angel' - white flowers, glossy red fruit persisting into winter; 'White Candle' - pink buds open to white flowers, red fruit, upright growth habit; 'Zumi Calocarpa' - white flowers, bright red persistent fruit.

One of the best Crabapples for the south is Malus x Callaway.

Disease-resistant cultivars include: 'David', 'Dolga', 'Donald Wyman', 'Ellwangeriana', 'Inglis', 'Jackii', 'Jewelberry', 'Margaret', 'Mary Potter', 'Mount Arbor Special', 'Prairifire', 'Professor Sprenger', 'Tomiko'.

**Pests**

Aphids infest branch tips and suck plant juices, and are quite common. They can deform newly emerging foliage and secret honey dew creating a sticky mess beneath the tree, but will not kill the tree.

Fall webworm makes nests on the branches and feeds on foliage inside the nest. Small nests can be pruned out or sprayed with *Bacillus thuringiensis*. Controlling severe infestations may require other chemicals.

Scales of various types are controlled with horticultural oil.

Borers can be a problem on stressed trees.

Mites are too small to see easily so they can cause much foliage discoloration before being detected. Mites can be controlled to a degree with horticultural oil, but other chemicals are often required by the time mites are detected. The mite infestation can also be severe by the time foliage chlorosis or bronzing is evident.

Eastern tent caterpillar builds tents or nests in trees in early summer or late spring. Feeding occurs on foliage outside the nest. Defoliation can be extensive if infestation is severe, and repeated defoliations for several years can weaken trees. Small nests can be removed by pruning them from the tree. Paint with *Bacillus thuringiensis* or other approved chemicals. Do not burn nests while they are still in the tree.

**Diseases**

'Red Jewel' is fairly resistant to disease but is slightly susceptible to powdery mildew.

Scab infection takes place early in the season and dark olive green spots appear on the leaves. In late summer the infected leaves fall off when they turn yellow with black spots. Infected fruits have black, slightly raised spots. Use resistant varieties to help avoid this severe problem.

Fire blight susceptible trees have blighted branch tips, particularly when the tree is growing rapidly. Leaves on infected branch tips turn brown or black, droop, and hang on the branches. The leaves look scorched as by a fire. The trunk and main branches become infected when the bacteria are washed down the branches. Cankers form and are separated from adjacent healthy bark by a crack. The infected bark may be shredded. Use resistant cultivars when available since severe infections on susceptible trees can kill the tree.

Powdery mildew coats leaves with white fungal growth resembling powder.

Cedar apple rust causes brown to rusty-orange spots on the leaves. Badly spotted leaves fall prematurely, and defoliation can be heavy. Redcedars (*Juniperus virginiana*) are the alternate host.

Crabapples are subject to several canker diseases. Prune out infected branches, avoid unnecessary wounding, and keep trees healthy.