



Malus baccata 'Columnaris' Columnar Siberian Crabapple¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

One of the many selections of flowering Crabapple, Siberian Crabapple is a deciduous tree with an unusually narrow crown for a Crabapple (Fig. 1). Reaching about 30 to 35 feet in height, this cultivar only grows to about 8 or 10 feet wide. The very fragrant blooms are 1.5 inches in diameter, are pink when in bud but open up to white. The blooms are followed in fall by long-lasting, bright red or yellow fruits which are very popular with the birds or can be used to make a delicious jelly. This cultivar may make less of a mess beneath the tree than others due to a light fruit set.

GENERAL INFORMATION

Scientific name: *Malus baccata* 'Columnaris'

Pronunciation: MAY-lus back-AY-tuh

Common name(s): Columnar Siberian Crabapple

Family: *Rosaceae*

USDA hardiness zones: 3B through 8A (Fig. 2)

Origin: not native to North America

Uses: Bonsai; container or above-ground planter; espalier; wide tree lawns (>6 feet wide); medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; trainable as a standard; narrow tree lawns (3-4 feet wide); specimen; sidewalk cutout (tree pit); residential street tree; no proven urban tolerance

Availability: generally available in many areas within its hardiness range

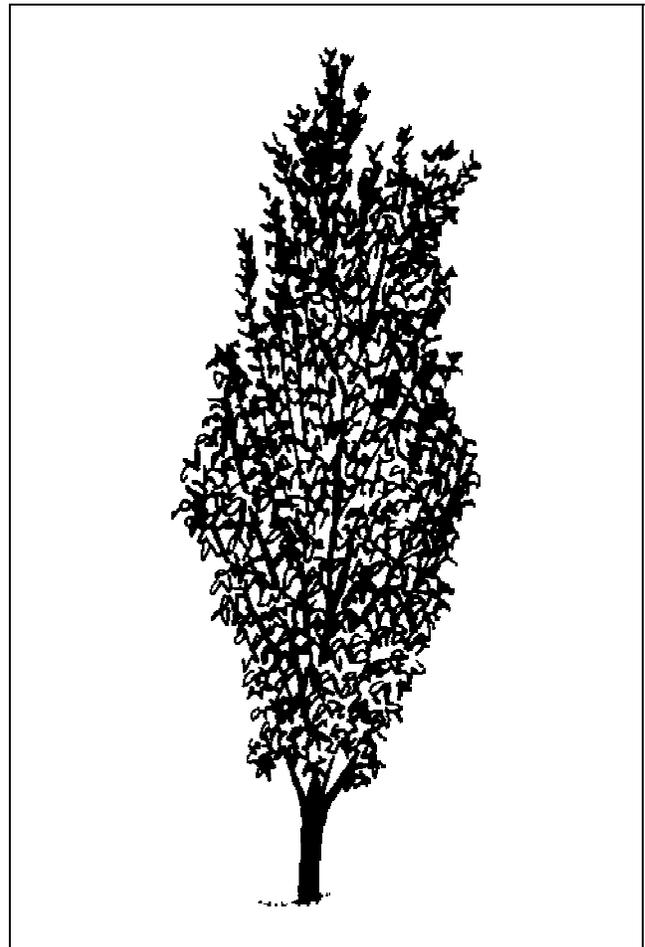


Figure 1. Middle-aged Columnar Siberian Crabapple.

DESCRIPTION

Height: 30 to 35 feet

Spread: 8 to 10 feet

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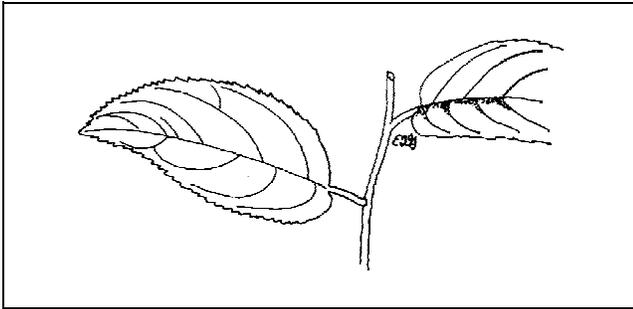


Figure 2. Foliage of Columnar Siberian Crabapple.

Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms
Crown shape: columnar; upright
Crown density: dense
Growth rate: medium
Texture: medium

Foliage

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

Flower

Flower color: white
Flower characteristics: pleasant fragrance; spring flowering; very showy

Fruit

Fruit shape: round
Fruit length: < .5 inch
Fruit covering: fleshy
Fruit color: red; yellow
Fruit characteristics: attracts birds; attracts squirrels and other mammals; suited for human consumption; no significant litter problem; persistent on the tree; showy

Trunk and Branches

Trunk/bark/branches: routinely grown with, or trainable to be grown with, multiple trunks; grow mostly upright and will not droop; not particularly

showy; tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns
Pruning requirement: needs little pruning to develop a strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: medium; thin

Culture

Light requirement: tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; occasionally wet; alkaline; well-drained

Drought tolerance: moderate

Aerosol salt tolerance: low

Soil salt tolerance: moderate

Other

Roots: surface roots are usually not a problem

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: not particularly outstanding

Invasive potential: little, if any, potential at this time

Ozone sensitivity: sensitive or moderately tolerant

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: long-term health usually not affected by pests

USE AND MANAGEMENT

Pruning should be completed by late spring to ensure flower buds are not removed. Trees normally branch low, and need little training to develop a central trunk. Low branches will probably not need to be removed for vehicle and pedestrian clearance as in the species due to the upright growth habit. Crabapples need occasional thinning to eliminate water sprouts or crossed-branches and to open up the crown, to help prevent leaf diseases. This cultivar is very susceptible to scab and fireblight.

Siberian Crabapple grows in moist, well-drained, acid soil in full sun locations for best flowering and disease resistance. It is not extremely drought tolerant and not really adapted to alkaline soil, and not for extreme west Texas. Grows well on the Texas panhandle, where there are a number of apple orchards.

The cultivar 'Jackii', grows into USDA hardiness zones 2 to 7, has upright-spreading habit, grows 20 to

30 feet high and 15 feet wide, has pink-tinged white buds, purplish or maroon-red fruit, and is reportedly disease-resistant. There are many, many cultivars - be sure to select those which are disease-resistant. Contact the Ornamental Crabapple Society, Morton Arboretum, Lisle, Illinois 60532 for more information on Crabapples.

Trees produced on their own roots are preferred. Grafted or budded trees are more uniform in habit and performance than seedling trees.

Pests

Aphids infest branch tips and suck plant juices.

Fall webworm makes nests on the branches and feeds inside the nest. Small nests can be pruned out or sprayed with *Bacillus thuringiensis*.

Scales of various types are usually controlled with horticultural oil.

Mites are too small to see easily so can cause much foliage discoloration before being detected. Mites are usually controlled with horticultural oil.

Tent caterpillar builds tents or nests in trees in early summer or late spring. Feeding occurs outside the nest. Small nests are pruned out or simply pull the nest out of the tree and crush the caterpillars. Do not burn nests while they are still in the tree since this can cause severe damage to the tree and could start an uncontrolled fire.

Diseases

Siberian Crabapple is susceptible to 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.

Fire blight susceptible trees have blighted branch tips. 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, and do not over-fertilize.

Powdery mildew is a fungus which coats leaves with mycelia resembling white powder.

Rust causes brown to rusty-orange spots on the leaves. Badly spotted leaves fall prematurely. Redcedars are the alternate host.

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