



# Hawthorn

*Crataegus erythropoda* Ashe; *Crataegus rivularis* Nutt; *Crataegus mexicana* Moc. & Sessé ex DC; *Crataegus* spp.

Rosaceae

## Species description

Hawthorns are deciduous, thorny shrubs or small, spreading trees with scaly, flaking, dark brown bark on the trunk and branches. The leaves alternate, simple, broadly ovate to diamond shaped, serrated on the margins, hairless, and shiny. The flowers are perfect 5-petaled, pink to white, born abundantly in clusters. The flowers appear in spring, with or after the leaves.

*Crataegus erythropoda* has white flowers, whereas *C. rivularis* has pink flowers. The



globose pome fruit contain one to five nutlets, like a tiny apple. The two Arizona native species have red to burgundy-colored fruits, whereas fruit color is widely variable around the world and may be yellow, orange or red, to blue-black. Hawthorn fruit flesh may be mealy to succulent. The fruits overwinter on the tree. The shrubs or trees grow 10-15 feet tall and equally broad in diameter. They will tolerate a wide range of climatic conditions, though they prefer moist or humid areas. They are very frost tolerant and occur from 4,500-8,000 feet in elevation.

## Natural and cultural history

Hawthorn species are native to the temperate regions of North America, Europe and Asia. There are approximately 280 species; about 220 of these species are native to North America, and most occur east of the Rocky Mountains. Two species, *Crataegus erythropoda* and *C. rivularis* are native to Arizona and throughout the temperate, intermontane regions of western U.S. coastal ranges and the Rocky Mountains. These small shrubs and trees grow on hillsides or in riparian habitats along stream banks and in moist canyons. Mexican hawthorn or *tejocote*, *C. mexicana* is native to the mountains of Mexico.

Native American cultures used the berries as a food source; twelve or more different hawthorn species have been documented in ethnohistorical accounts. Many hawthorn species are grown for their edible fruits in Asia, Central America, and the Mediterranean countries.

## Planting considerations and propagation techniques

Hawthorn shrubs and trees prefer full sun and well-drained loamy soils. Hawthorns are adapted to a wide range of soil types from heavy clay to sand, and from acidic to basic in pH. They are often planted as ornamentals and are important in wildlife habitat. The trees are wind tolerant and useful in hedgerows and wind blocks along garden and field edges. Hawthorns provide food

and shelter for birds, insect (butterflies) and mammals, and the flowers are important for nectar-feeding insects.

Hawthorns are typically propagated from seed. Seeds may be planted in soils outside, though they have a double dormancy requirement and may take up to two years to germinate. Pre-germination treatments consist of acid-scarification followed by cold stratification. Warm stratification may also be necessary to induce germination. Grafting of some cultivars onto seedling rootstock may also be an effective propagation method.



### **Water needs**

Hawthorns are a riparian species, however they are moderately drought tolerant and may be more so after establishment.

### **Care**

Hawthorns are susceptible to many diseases such as apple scab, fire blight, leaf blights and rust; this may be diminished by application of lightweight horticultural oil early in the season. Some varieties are more disease resistant.

Hawthorns are not typically pruned but can be trained to a central leader. Suckers should be removed from the base. Dead, diseased and crossing branches can also be removed to improve tree health and vigor.

### **Harvesting and processing**

Ripe fruits of many hawthorn species fall from the branches in autumn and may be gathered off the ground. Some species hold their fruit, and these must be harvested off the trees. The fruits are used to make jellies, preserves, syrups and wine. The seeds of hawthorn contain cyanide and should not be consumed.

### **References and resources**

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