

The Herb Society of America's Notable Native™ Herbal Tree 2022 *Crataegus succulenta*, fleshy hawthorn



Crataegus succulenta var. *succulenta*
fleshy hawthorn © Colin Chapman-Lam
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Family: Rosaceae

Latin Name: *Crataegus succulenta* Schrad ex Link

Common Names: fleshy hawthorn, haw, Mayhaw, Maythorn, Mayflower, quickset

Growth: Tree

Hardiness: Zones 4-8 by species

Light: Full to partial sun or light shade

Soil: Well-drained, sandy to loamy

Water: Moderate moisture

Use: Pollinator; fragrance; edible fruits

Propagation: Seed; softwood cuttings; grafts

History

*Mark the faire blooming of the
hawthorne tree,
Who, finely clothed in a robe of white,
Fills the wanton eye with May's delight.*

Chaucer ~ 1300s

This large genus of thorny shrubs and trees in the Rosaceae family originates from the northern temperate regions of the world and is found in Asia, Europe, and North America.

Every state in the continental U.S. has at least one species of hawthorn growing naturally, with most having multiple species.

Due to the complexity of the various forms and hybrids of *Crataegus* and the questionability of the many assigned names, hawthorns are especially hard to identify.

The common names used to describe this plant refer to its notable characteristics and historical uses. "May" is from its time of flowering, "Quickset" from its use as a quick or living hedge, "haws" refer to its red fruit, and "Bread and Cheese Tree" because the edible fresh young leaves were added to sandwiches.

Description

The fleshy hawthorn is a deciduous woody shrub/small tree growing from 9 to 24 feet tall, often with multiple stems growing from the base.

Spring interest is provided by the bright coral red bud scales.

The symmetrical white flowers are conspicuous and fragrant with the anther colors varying in tints of pink, red, or purple.

The tree produces red berry-like fleshy fruits, called a pome, that contain seeds. The seeds are not edible.

The bark is ridged and plated. New growth on branches and twigs is reddish green offering nice winter color. At one year the twigs are dark, shiny reddish-brown. At 2-3-years old they become dark gray. As they continue to age, they become a paler gray.

Thorns on twigs are numerous, usually recurved (bent backwards).

Leaves are firm, leathery and lobed with edges being toothed. Leaves, widest in the middle and tapering to the point, drop off or wither in the winter.

Other *Crataegus* species

Worldwide, there have been claims of as many as 1,000 species of *Crataegus*. In the U.S. that is narrowed to about 230, at least 17 of which are hybrids.

A frequent difficulty in identifying *Crataegus* species derives from the



C. macrosperma fruits on a tree in Bass Harbor, ME in mid-October. ©K. Schlosser

co-existence of geographically close, and significantly atypical, named entities with otherwise well-defined taxa. Identification of the genus is relatively easy, but getting the species correct can be a challenge.

Many botanists suggest that verifying an identification is best done by observing the characters of a tree in both spring and fall, using flowers, fruits, and leaf shapes. Plants with similar flowers may have fruits that are visibly different. Leaves vary even on the same tree, so are not reliable for identification without considering other characters. Habitat is also a clue.

Thorns

Most hawthorns have thorns along their branches, providing explanation for their frequent use in hedgerows for purposes of inclusion or exclusion of animals or humans. Thorns vary in size, density, and form but all are strong and sharp.

Gardeners may be interested in thornless cultivars including: *C. crus-galli* var. *inermis*, *C. viridis* 'Winter King', *C. punctata* 'Ohio Pioneer', *C. phaenopyrum* 'Princeton Sentry,' and 'Fastigiata.'

Culture & Habitat

Hawthorns are commonly used as landscape specimens, where they do quite well. They are adaptable to new environments, including light and soil types. Natural populations are generally found in moderately moist soil but can adapt to droughty conditions. Flowering and fruit set is best in sunny spots, though light shade is adequate.

Many species are susceptible to cedar-hawthorn and cedar-quince rusts and fireblight. Other diseases may include fungal leaf spots and powdery mildew. Potential insect pests include aphids, borers, lacebugs, leafminers, and scale.

Pollinators

Jessica Snow, working with University of Michigan-Dearborn students, studied Hawthorn pollinators. The students observed the trees over four days, noting all insects that visited the flowers. The list of visitors was broken down into two groups: primary pollinators, those who directly collect nectar and pollen, and secondary pollinators, who accidentally pollinate flowers while performing their own feeding behaviors either on the plant itself or other insects found there.

Primary Pollinators found:

Small Carpenter Bee
Large Carpenter Bee
Metallic Sweat Bee
Mining Bee
Honey Bee

Spotted Lady Beetle
Bumble Flower Beetle
Flesh Fly
Bee Fly
Syrphid Fly
Red Admiral Butterfly
Yellowjacket
Ichneumon Wasp

Secondary Pollinators found:

Asian Multicolored Lady Beetle
Rove Beetle
Muscid Fly
Spread-winged Damsel fly
Assassin Bug
Plant Bug
Thread-wasted Wasp

Mining bees, sweat bees, flesh flies, and Red Admiral butterflies were found on multiple days of observation causing them to be considered the most common pollinators in the Michigan area.

Uses

Hawthorns have a history of use for treating skin problems, as an antidiarrheal, as a gastrointestinal aid, and as an analgesic. More contemporary uses have included its efficacy for dilating coronary arteries to help lower blood pressure. Some species may also be used as an adjunct in treating congestive heart failure.

The fruits of many hawthorns have long been used as a food, and *C. succulenta* is a good choice for making jellies. The fruits are also crushed to make tea.

Young early spring leaves of hawthorns have a nutty flavor and are often eaten on sandwiches with cheese or in salads—or chewed out of hand when walking. Mature

leaves may be too tough to eat.

The fruits are also famed for making Hawthorn Wine and Schnapps.

Thorns were used as fish hooks, and the hard, dense wood has been used for tool handles, fence posts, and other small objects.

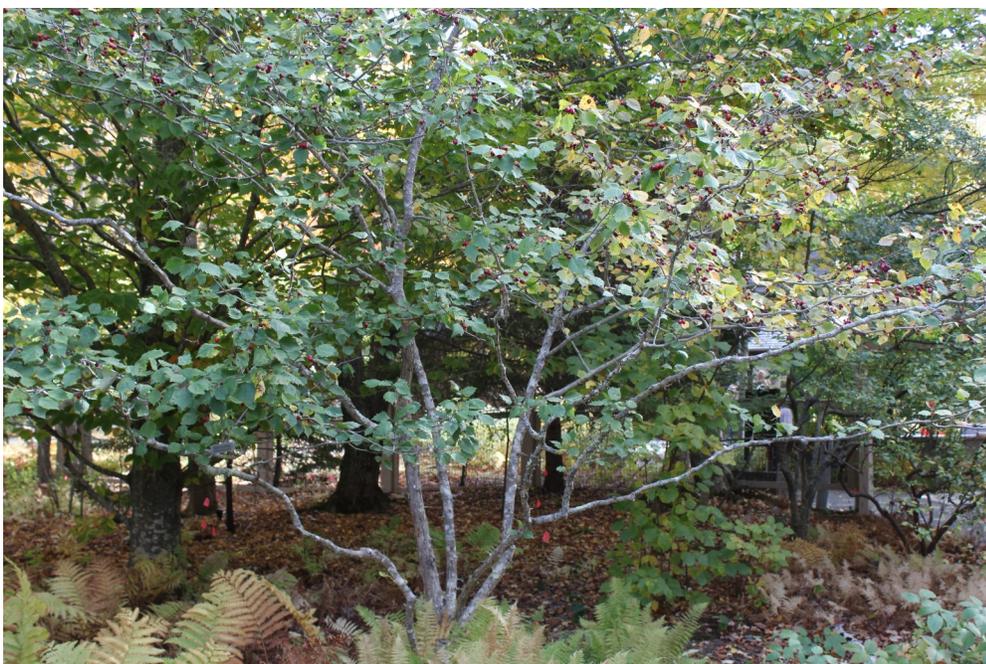
Birds, especially cedar waxwings, nest in the trees without regard to the thorns and eat the fruits. Deer, rodents, and other small animals also consume the fruits and find shelter in the dense growth with the additional protection of thorns.

Propagation

Most species of hawthorn are propagated by seed as they are difficult to root from cuttings. The seeds need to be cycled through a warm-cold stratification process. Since most hawthorns do not root well from stem cuttings, bud grafting is used to shorten the time from propagation to mature plant and for cloning a plant with desirable characteristics.

Conservation Status

While the fleshy hawthorn is native to most of the US and Canada, it appears to be uncommon in much of its range. One source listed a global rating of G5 – at low risk for extinction due to an extensive range, and little to no concern from threats. It should be noted that its preferred habitats are shrublands, forest edges, and early successional ecosystems. These habitats are typically ones most likely to be threatened and degraded by invasive species and development.



C. macrosperma, Big Fruit Hawthorn (referring to the seeds inside the fruit).

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More Hawthorns of Interest

Washington Hawthorn



The Washington hawthorn, *Crataegus phaenopyrum*, is an excellent choice for the landscape, having year-round interest. Reaching up to 35 feet in height and with a dense, rounded crown 25' to 30' across, it is a frequent choice for its flowers, fragrance, and fruits.

The specific epithet, *phaenopyrum*, is a reference to the resemblance of the flowers to pear blossoms, in spite of the fact that many also see them as looking like apple blossoms.

The white flowers grow in clusters with yellow centers and bloom from late spring and into early summer. Though their fragrance is sweet, some people find it a bit overpowering.

After flowering ¼-inch pomes appear green and ripen to bright red. The fruits persist through the winter and although edible, the seeds contain cyanide as do the seeds of apples. Birds love the fruits.

Glossy dark green leaves change to orange and scarlet in the Fall. They are alternate to 3" long with 3–5 lobes and toothed margins.

The silvery grey scaly bark offers winter interest and a contrast for the red fruits. Twigs are flaky and reddish-brown in color. Branching tends to be horizontal.

Slender thorns on the branches are up to 3" long, making the tree suitable as barrier hedging and a safe place for nesting birds, who manage to avoid the thorns when flying in and out.

Hawthorns in the Southwest

Often associated with the Eastern U.S. in moist areas, hawthorns are found across our country and in varying habitats, including Arizona and New Mexico.

Among the hawthorns growing naturally in the Southwest (some further North as well) are the following:

Crataegus chrysoarpa, fireberry
CO, NM, UT and North

Crataegus douglasii, black hawthorn
CA, NV, UT, WY, MT, ID, WA, OR

Crataegus rivularis, river hawthorn
AZ, CO, NM, NV, TX, UT and North

Crataegus erythropoda, cerro hawthorn
AZ, CO, NM, UT and North

Crataegus gaylussacia, Klamath hawthorn
CA, OR, WA, ID, MT

Crataegus macracantha, large-thorn haw
NM, UT, MT, WA, OR

Crataegus succulenta, fleshy hawthorn
AZ, NM, CO, and North

Many of these grow elsewhere in the U.S. as well. Consult a good map to determine what grows near you:

BONAP, The Biota of North America, county maps:
<http://bonap.net/Napa/TaxonMaps/Genus/County/Crataegus>

Invasive non-native species—English hawthorn

Crataegus monogyna, commonly known as one-seed hawthorn, English hawthorn, or whitethorn, was introduced from Europe and North Africa to the U.S. in the early 1800s as an ornamental. It is smaller than most U.S. species, growing only to about 20' tall, making it desirable in home landscapes.

It is well established in parts of the Pacific Northwest and is a common invasive species in prairies and deciduous woodlands of Oregon, where it has been present for over 100 years, to mid-California. It is found

across northern North America to the East Coast, avoiding the Southeast, which is generally too hot and humid for it. The plant is capable of hybridizing with nearby native species.

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C. monogyna, English hawthorn.
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9019 Kirtland Chardon Rd. Kirtland, Ohio 44094 440.256.0514, herbs@herbsociety.org

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