



# *Crataegus laevigata* English Hawthorn<sup>1</sup>

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## INTRODUCTION

English Hawthorn reaches a height 20 to 25 feet (Fig. 1). It grows rapidly in a pyramidal form to about 20 feet, then the crown expands to become oval or irregular. The tree tolerates most soils, growing well in clay, but prefers heavy, dry loam. The main ornamental feature is white or pink flowers borne in spring and good fall color. Some types produce ornamental scarlet fruits. Though quite ornamental, Hawthorns are severely affected by insect and disease problems.

## GENERAL INFORMATION

**Scientific name:** *Crataegus laevigata*

**Pronunciation:** kruh-TEE-gus lee-vih-GAY-tuh

**Common name(s):** English Hawthorn

**Family:** *Rosaceae*

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

**Origin:** not native to North America

**Uses:** Bonsai; 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; reclamation plant; screen; narrow tree lawns (3-4 feet wide); sidewalk cutout (tree pit); residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

**Availability:** generally available in many areas within its hardiness range

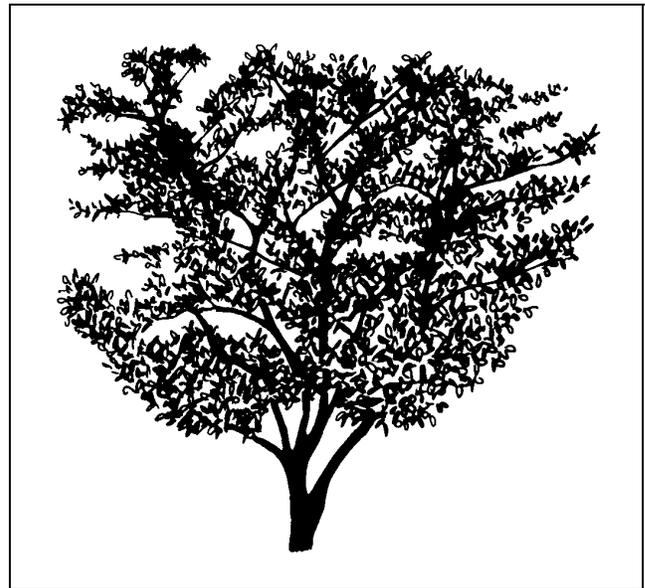


Figure 1. Middle-aged English Hawthorn.

## DESCRIPTION

**Height:** 20 to 25 feet

**Spread:** 15 to 25 feet

**Crown uniformity:** irregular outline or silhouette

**Crown shape:** oval; pyramidal

**Crown density:** moderate

**Growth rate:** medium

**Texture:** fine

## Foliage

**Leaf arrangement:** alternate (Fig. 3)

**Leaf type:** simple

**Leaf margin:** lobed; serrate

**Leaf shape:** obovate; ovate

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Figure 2. Shaded area represents potential planting range.

**Leaf venation:** pinnate

**Leaf type and persistence:** deciduous

**Leaf blade length:** less than 2 inches

**Leaf color:** green

**Fall color:** no fall color change

**Fall characteristic:** not showy

### Flower

**Flower color:** lavender; pink; white

**Flower characteristics:** showy; spring flowering

### Fruit

**Fruit shape:** round

**Fruit length:** < .5 inch

**Fruit covering:** fleshy

**Fruit color:** red

**Fruit characteristics:** attracts birds; no significant litter problem; persistent on the tree; showy

### Trunk and Branches

**Trunk/bark/branches:** droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; not particularly showy; tree wants to grow with several trunks but can be trained to grow with a single trunk; thorns are present on the trunk or branches

**Pruning requirement:** requires pruning to develop strong structure

**Breakage:** resistant

**Current year twig color:** brown

**Current year twig thickness:** medium

### Culture

**Light requirement:** tree grows in full sun

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

**Drought tolerance:** high

**Aerosol salt tolerance:** low

**Soil salt tolerance:** poor

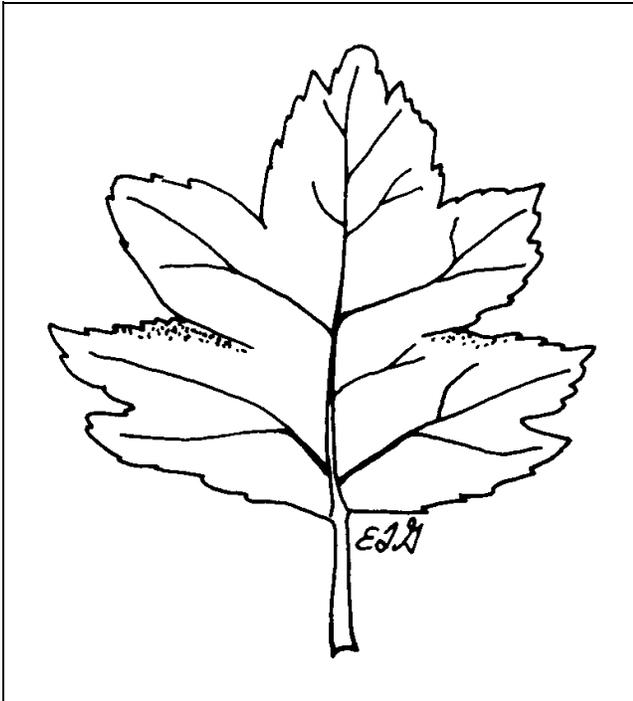


Figure 3. Foliage of English Hawthorn.

### 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

**Verticillium wilt susceptibility:** not known to be susceptible

**Pest resistance:** very sensitive to one or more pests or diseases which can affect tree health or aesthetics

### USE AND MANAGEMENT

The tree casts heavy shade, and turf can not be grown underneath, if lower branches are left on the trunk. Persistent lower branches add to the ornamental characteristic of the tree and it makes a nice specimen in a lawn for all seasons when left unpruned. When lower branches are removed, this tough tree can be used as a street or parking lot tree where overhead space is limited by powerlines or other features. Branches bear sharp thorns which can inflict pain as they meet flesh. Grows well in tree pits and other confined soil spaces but probably should not be planted there due to sharp thorns. Plant in the open with good air circulation to help reduce disease, since leaf diseases can be common.

A number of improved cultivars are offered in garden centers including 'Crimson Cloud' with red flowers. This cultivar is nearly thornless and is preferred over the species. A number of other cultivars are offered in garden centers: 'Flore-Plena' - double, white flowers; 'Gireoudii' - foliage variegated, white flowers, large red fruit; 'Masekii' - pale rose, double flowers; 'Paulii' ('Paul's Scarlet') - deep pink, double flowers; 'Pendula' - weeping growth habit; 'Punica' - single, pink flowers; 'Rosea' - pink flowers; 'Stricta' - upright growth habit.

### Pests

Aphids on small trees can be partially controlled with strong sprays of water from a garden hose, if the colony is in the lower branches. Sometimes the aphids themselves are not seen but the distorted growth, honeydew on the leaves, and sooty mold growing on the honeydew are obvious.

Borer attacks may be prevented if the trees are kept in good vigor with regular fertilization.

Leaf miners symptoms are brown blotches on the leaves.

Lace bugs can be a serious, though occasional, problem. The insect feeding on the undersides of the leaves causes chlorotic flecks on the upper leaf surfaces. The lower sides of the leaves are covered with small, brown, sticky flecks.

The pear slug skeletonizes Hawthorn leaves and these sawfly larvae have a slimy appearance. A few insects can be washed off with a garden hose.

Tent caterpillar nests can be pruned out while still small. Sprays of *Bacillus thuringiensis* may be used. Do not burn nests while the nests are in the tree. The injury from the fire may exceed that caused by the insects.

Scales may be controlled with horticultural oil sprays.

Spider mites are so small they can cause much foliage discoloration before being detected.

## Diseases

Fire blight: This disease can be severe in some parts of the country. The first noticeable symptom of fire blight is the browning of branch tips. The tips appear to be burned or scorched and the dead, brown leaves droop but hang on the tree. Cankers form and the bacteria is washed farther down the branch by rain. The bacteria, *Erwinia amylovora*, are spread from diseased to healthy twigs by rain, bees, and other mechanical means. There is no satisfactory chemical control. The disease is less of a problem if trees are not located near apple or pear orchards. Prune out blighted branch tips by cutting a foot or two beyond the diseased wood. Over-fertilizing with nitrogen fertilizer may increase tree susceptibility to fire blight.

Leaf blight attacks most Hawthorns but especially English Hawthorn. The symptoms are small reddish brown spots on the leaves which may run together. Infected leaves drop in August and severely infected trees may be completely bare.

Cedar Hawthorn rust causes orange or rust colored spots on the leaves leading to early defoliation. The fruits and twigs are also attacked. Juniper is an alternate host. Cedar-quince rust attacks fruits. Washington, Lavelle and Cockspur Hawthorn are resistant to rust diseases.

Scab causes leaf spotting and defoliation. The fruit have black raised spots on them.

Powdery mildew causes a white powdery growth on the leaves.