



## *Cercis canadensis* Eastern Redbud<sup>1</sup>

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### INTRODUCTION

The state tree of Oklahoma, Eastern Redbud is a moderate to rapid-grower when young, reaching a height of 20 to 30 feet (Fig. 1). Thirty-year-old specimens are rare but they can reach 35 feet in height forming a rounded vase. Trees of this size are often found on moist sites. The splendid purple-pink flowers appear all over the tree in spring, just before the leaves emerge. Eastern Redbud has an irregular growth habit when young but forms a graceful flat-topped vase-shape as it gets older. The tree usually branches low on the trunk, and if left intact forms a graceful multitrunked habit. Be sure to avoid weak forks by pruning to reduce the size of lateral branches and save those which form a 'U'-shaped crotch, not a 'V'. Keep them less than half the diameter of the main trunk to increase longevity of the tree. Do not allow multiple trunks to grow with tight crotches, instead space branches about 6 to 10 inches apart along a main trunk. Yellow (although somewhat variable and unreliable) fall color and tolerance to partial shade make this a suitable, attractive tree for understory or specimen planting. Best not used extensively as a street tree due to low disease resistance and short life, but is nice in commercial and residential landscapes. Plant in a shrub border for a spring and fall color display.

### GENERAL INFORMATION

**Scientific name:** *Cercis canadensis*

**Pronunciation:** SER-sis kan-uh-DEN-sis

**Common name(s):** Eastern Redbud

**Family:** *Leguminosae*

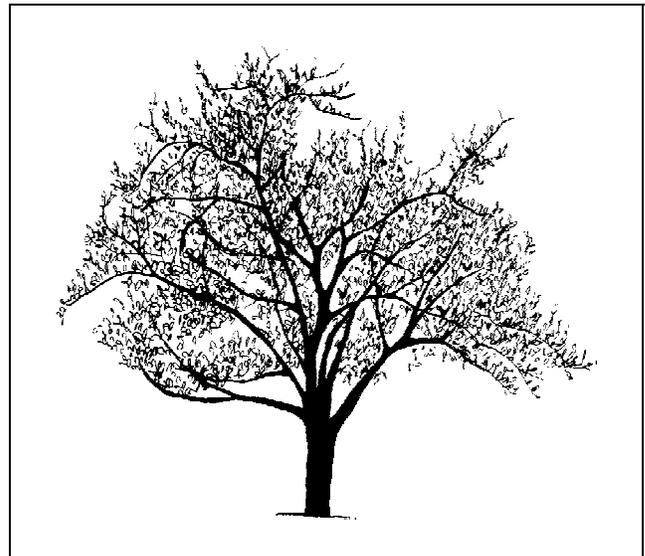


Figure 1. Mature Eastern Redbud.

**USDA hardiness zones:** 4B through 9A (Fig. 2)

**Origin:** native to North America

**Uses:** container or above-ground planter; large parking lot islands (> 200 square feet in size); wide tree lawns (>6 feet wide); medium-sized parking lot islands (100-200 square feet in size); medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; near a deck or patio; reclamation plant; shade tree; small parking lot islands (< 100 square feet in size); narrow tree lawns (3-4 feet wide); specimen; sidewalk cutout (tree pit); residential street tree

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

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Figure 2. Shaded area represents potential planting range.

## DESCRIPTION

**Height:** 20 to 30 feet  
**Spread:** 15 to 25 feet  
**Crown uniformity:** irregular outline or silhouette  
**Crown shape:** round; vase shape  
**Crown density:** moderate  
**Growth rate:** fast  
**Texture:** coarse

## Foliage

**Leaf arrangement:** alternate (Fig. 3)  
**Leaf type:** simple  
**Leaf margin:** entire  
**Leaf shape:** orbiculate; ovate  
**Leaf venation:** banchidodrome; pinnate; palmate; reticulate  
**Leaf type and persistence:** deciduous  
**Leaf blade length:** 4 to 8 inches; 2 to 4 inches  
**Leaf color:** green  
**Fall color:** yellow  
**Fall characteristic:** showy

## Flower

**Flower color:** lavender; pink; purple  
**Flower characteristics:** spring flowering; very showy

## Fruit

**Fruit shape:** pod  
**Fruit length:** 1 to 3 inches  
**Fruit covering:** dry or hard  
**Fruit color:** brown  
**Fruit characteristics:** does not attract wildlife; no significant litter problem; persistent on the tree; showy

## Trunk and Branches

**Trunk/bark/branches:** bark is thin and easily damaged from mechanical impact; 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; no thorns

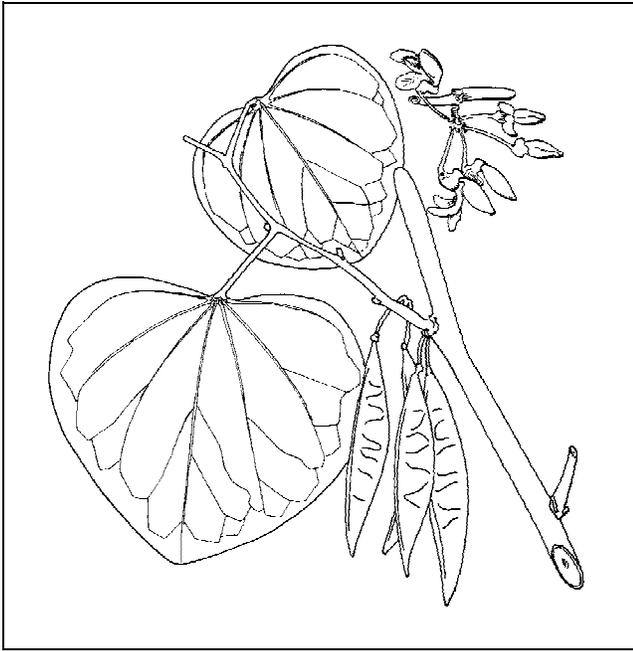


Figure 3. Foliage of Eastern Redbud.

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

**Breakage:** susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break

**Current year twig color:** brown

**Current year twig thickness:** medium

### Culture

**Light requirement:** tree grows in part shade/part sun; tree grows in full sun

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

**Drought tolerance:** high

**Aerosol salt tolerance:** none

**Soil salt tolerance:** poor

### Other

**Roots:** surface roots are usually not a problem

**Winter interest:** no special winter interest

**Outstanding tree:** not particularly outstanding

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

**Ozone sensitivity:** sensitive or moderately tolerant

**Verticillium wilt susceptibility:** susceptible

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

## USE AND MANAGEMENT

Eastern Redbuds grow well in full sun in the northern part of its range but will benefit from some shade in the southern zones, particularly in the lower mid-west where summers are hot. Best growth occurs in a light, rich, moist soil but Eastern Redbud adapts well to a variety of soil including sandy or alkaline. Trees look better when they receive some irrigation in summer dry spells. Its native habitat ranges from stream bank to dry ridge, demonstrating its adaptability. Trees are sold as single or multistemmed. Young trees are easiest to transplant and survive best when planted in the spring or fall. Containerized trees can be planted anytime. The beans provide food for some birds. Trees are short-lived but provide a wonderful show in the spring and fall.

Several cultivars of Eastern Redbud may be seen: forma *alba* - white flowers, blooms about a week later; 'Pink Charm' - flowers pink; 'Pinkbud' - flowers pink; 'Purple Leaf' - young foliage purple; 'Silver Cloud' - leaves variegated with white; 'Flame' - more erect branching, flowers double, blooms later, sterile so no seed pods form. 'Forest Pansy' is a particularly attractive cultivar with purple-red leaves in the spring, but color fades to green in the summer in the south. *Cercis canadensis* var. *texensis* 'Texas White' and *Cercis reniformis* 'Oklahoma' have far superior foliage and make wonderful substitutes for Eastern Redbud, particularly in non-irrigated areas. These are also better for central and western Oklahoma and Texas, as is the Mexican Redbud.

Cercis are best propagated by seed. Use ripe seed to plant directly, or, if seed has been stored, stratification is necessary before sowing in a greenhouse. Cultivars can be propagated by grafting onto seedlings, or by summer cuttings under mist or in a greenhouse.

### Pests

Borers attack the trunk of older and stressed trees. Keep the plant vigorous.

Scale insects can usually be controlled with horticultural sprays.

Webworm can defoliate parts of the tree in summer and fall.

## **Diseases**

Canker is the biggest problem with Eastern Redbud. Dieback begins as a canker on a branch. The cankers, at first small and sunken, enlarge to girdle the branch. Bark in the canker turns black and a crack forms between diseased and healthy bark. The fungus enters through wounds or dead and dying branches. Once girdled, the part of the stem beyond the canker wilts and dies. There is no chemical control. Prune out diseased branches.

Leaf spots can be a problem during wet weather. Since the disease is rarely serious, no chemical controls are suggested.

Verticillium wilt attacks and kills Eastern Redbud.