Cercis canadensis var. alba: White Eastern Redbud

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Introduction
The state tree of Oklahoma, redbud is a moderate to rapid-grower when young, reaching a height of 20 to 30 feet. Thirty-year-old specimens are rare but they can reach 35 feet in height, forming a rounded vase. The bright white flowers appear all over the tree in spring, just before the leaves emerge. Redbud has an irregular growth habit when young but forms a graceful flat-topped vase-shape or globe as it gets older. The tree usually branches low on the trunk, and if left intact forms a graceful multi-trunked habit. Be sure to avoid weak forks by pruning to reduce the size of lateral branches. 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 var. alba
Pronunciation: SER-sis kan-uh-DEN-sis variety AL-buh
Common name(s): White eastern redbud
Family: Leguminosae
USDA hardiness zones: 4B through 9A (Fig. 2)

Origin: native to North America
Invasive potential: little invasive potential
Uses: container or planter; tree lawn 3–4 feet wide; tree lawn 4–6 feet wide; tree lawn > 6 ft wide; street without sidewalk; sidewalk cutout (tree pit); parking lot island < 100 sq ft; parking lot island 100–200 sq ft; parking lot island > 200 sq ft; deck or patio; shade; specimen; reclamation; highway median
Availability: somewhat available, may have to go out of the region to find the tree

Figure 1. Mature Cercis canadensis var. alba: White Eastern Redbud
Description
Height: 20 to 30 feet
Spread: 15 to 25 feet
Crown uniformity: irregular
Crown shape: vase, round
Crown density: moderate
Growth rate: fast
Texture: coarse

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

Flower
Flower color: white/cream/gray
Flower characteristics: very showy

Fruit
Fruit shape: pod or pod-like
Fruit length: 1 to 3 inches
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: does not attract wildlife; showy; fruit/leaves not a litter problem

Trunk and Branches
Trunk/bark/branches: branches droop; not showy; typically multi-trunked; thorns
Pruning requirement: needed for strong structure
Breakage: susceptible to breakage
Current year twig color: brown
Current year twig thickness: medium
Wood specific gravity: unknown

Culture
Light requirement: full sun, partial sun or partial shade
Soil tolerances: sand; loam; clay; acidic; alkaline; well-drained
Drought tolerance: high
Aerosol salt tolerance: none

Other
Roots: not a problem
Winter interest: no
Outstanding tree: yes
Ozone sensitivity: unknown
Verticillium wilt susceptibility: susceptible
Pest resistance: low resistance to pests/diseases

Use and Management
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 Midwest where summers are hot. Best growth occurs in a light, rich, moist soil, but 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 multi-stemmed. 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 redbud may be seen: ‘Pink Charm’—flowers pink; ‘Pinkbud’—flowers pink; ‘Purple Leaf’—young foliage purple; ‘Silver Cloud’—leaves variegated with
white; and ‘Flame’—more erect branching, flowers double, blooms later, sterile so no seed pods form. ‘Forest Pansy’—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 a wonderful substitute for the eastern redbud, particularly in non-irrigated areas. These are also better for central and western Oklahoma and Texas.

*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 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 redbud. Fertilize affected trees with nitrogen fertilizer and prune out wilted branches.