



Metasequoia glyptostroboides Dawn Redwood¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

Dawn Redwood grows in a perfect pyramid 70 to 90 feet tall and was known from fossils before living plants were discovered in China (Fig. 1). It is similar in appearance to Bald Cypress. Although it looks like an evergreen, the needles are deciduous. The orange-red to brown trunk base is the most outstanding part of the tree. It tapers and thickens quickly with 8 to 12 large buttress-like root flares extending several feet up the tree in a manner unlike any other tree except some tropical trees. As with any other tree, butt flare (increased caliper at the base of the trunk) can be reduced somewhat by removing the lower branches at an early age. The small, upright-spreading branches are well-attached to the typically straight trunk and make for excellent climbing. The tree requires little if any pruning to maintain the pyramidal form. Lightning protection is recommended for older trees since they usually grow taller than most others.

GENERAL INFORMATION

Scientific name: *Metasequoia glyptostroboides*

Pronunciation: met-uh-see-KWOY-uh
glip-toe-stroe-BOY-deez

Common name(s): Dawn Redwood

Family: *Taxodiaceae*

USDA hardiness zones: 5 through 8 (Fig. 2)

Origin: not native to North America

Uses: 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

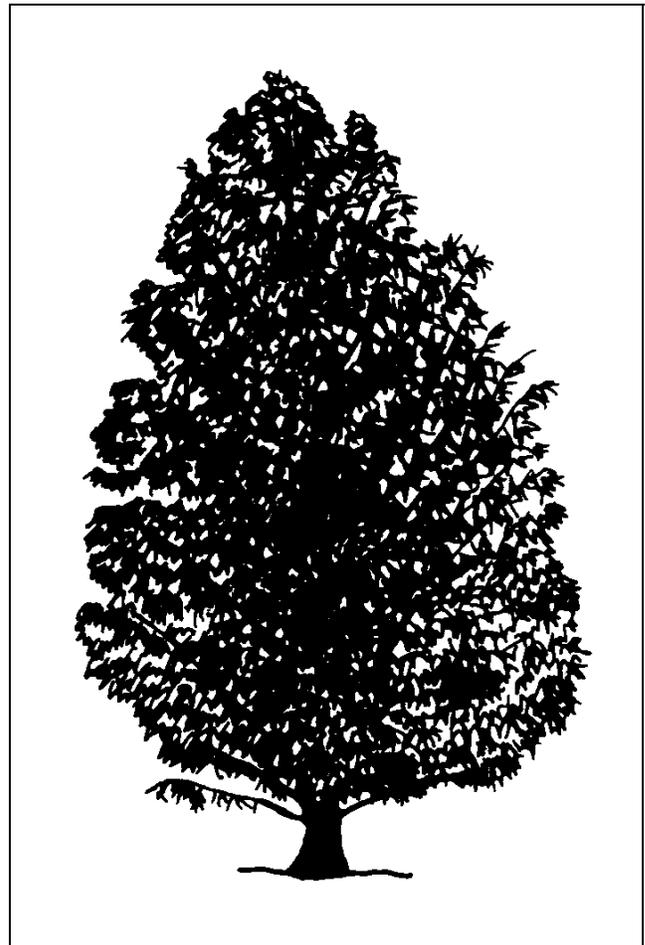


Figure 1. Middle-aged Dawn Redwood.

for median strip plantings in the highway; screen; specimen; sidewalk cutout (tree pit); residential street tree; no proven urban tolerance

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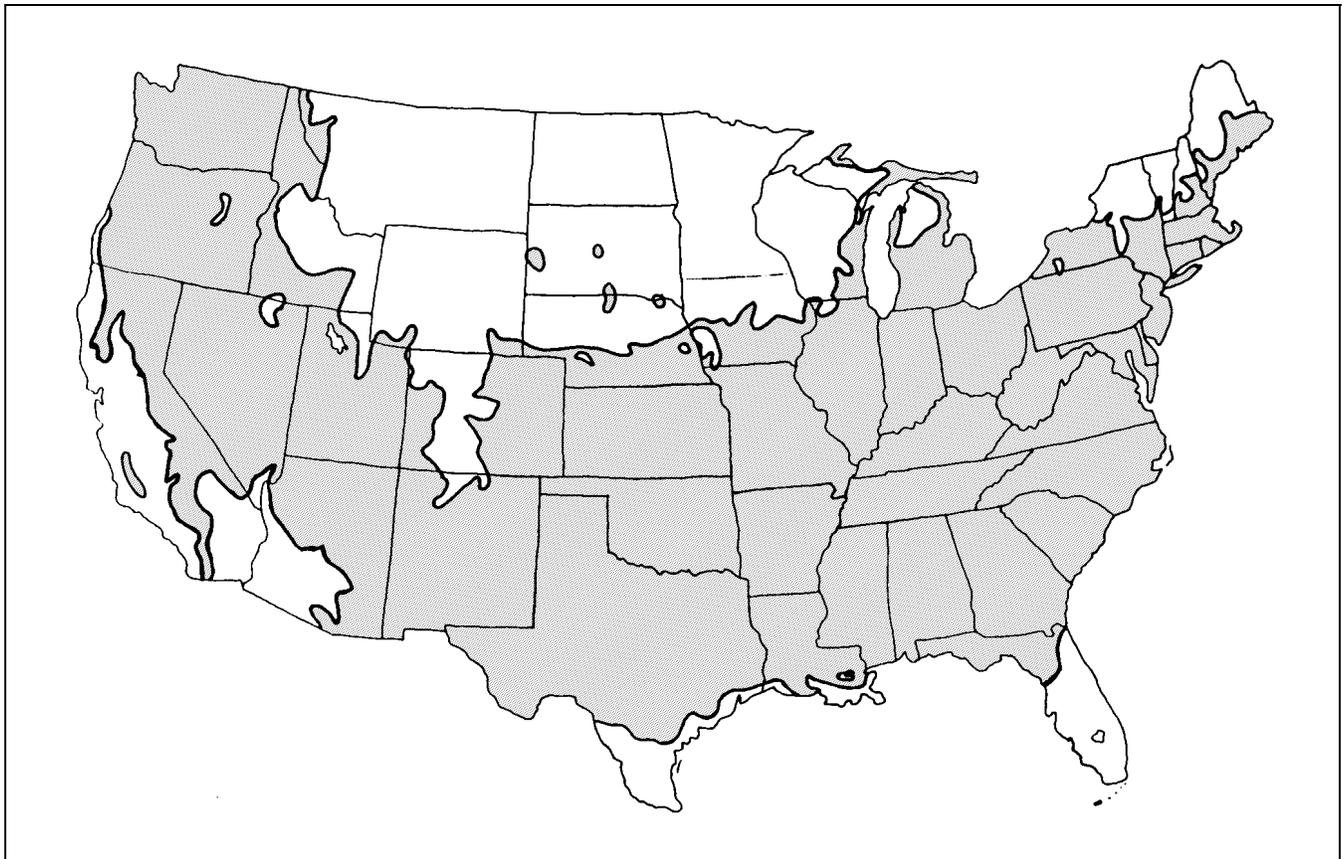


Figure 2. Shaded area represents potential planting range.

Availability: somewhat available, may have to go out of the region to find the tree

Fall characteristic: showy

DESCRIPTION

Height: 70 to 90 feet

Spread: 15 to 25 feet

Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

Crown shape: pyramidal

Crown density: open

Growth rate: fast

Texture: fine

Flower

Flower characteristics: inconspicuous and not showy

Fruit

Fruit shape: elongated; round

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: does not attract wildlife; inconspicuous and not showy; no significant litter problem

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: linear

Leaf venation: none, or difficult to see

Leaf type and persistence: deciduous

Leaf blade length: less than 2 inches

Leaf color: green

Fall color: orange; yellow

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; should be grown with a single leader; very showy trunk; no thorns

Pruning requirement: needs little pruning to develop a strong structure

Breakage: resistant



Figure 3. Foliage of Dawn Redwood.

Current year twig color: brown; green

Current year twig thickness: thin

Culture

Light requirement: tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; extended flooding; well-drained

Drought tolerance: moderate

Aerosol salt tolerance: low

Soil salt tolerance: poor

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: tree has outstanding ornamental features and could be planted more

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

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: not known to be susceptible

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

USE AND MANAGEMENT

The tree has been used primarily as a specimen, but there are reports of it being very tolerant of air pollution and it has done well as a street tree with lower branches removed. Lower branches should be left on the tree for most other uses to enjoy the graceful form and delightful foliage. Do not plant in soil with a high pH.

The tree grows rapidly but late season growth may be injured by early frosts. The preferred soil is moist and moderately fertile, but *Metasequoia* does not appear to be impacted by drought, having survived in urban landscapes during recent summer droughts. It will also tolerate wet soil. It appears to be adapted to clay soil and grows best when located on continually moist sites with slightly acidic soil.

Propagation is from seeds or cuttings taken in late summer.

The cultivar 'National' grows to 85 feet tall.

Pests and Diseases

Relatively free of pests, except for a canker which has been reported recently.