



Acer buergeranum Trident Maple¹

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INTRODUCTION

This deciduous, 30 to 45-foot-high by 25-foot-wide tree has beautiful 3-inch-wide, tri-lobed leaves, glossy green above and paler underneath, which turn various shades of red, orange, and yellow in autumn (Fig. 1). Flowers are bright yellow and showy in the spring. Trident Maple naturally exhibits low spreading growth and multiple stems but can be trained to a single trunk and pruned to make it branch higher, allowing passage below its broad, oval to rounded canopy. With its moderate growth rate, attractive orange-brown peeling bark, and easy maintenance, Trident Maple is popular as a patio or street tree and is also highly valued as a bonsai subject. Crown form is often variable and selection of a uniformly-shaped, vigorous cultivar is needed.

GENERAL INFORMATION

Scientific name: *Acer buergeranum*

Pronunciation: AY-ser ber-jair-AY-num

Common name(s): Trident Maple

Family: *Aceraceae*

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

Origin: not native to North America

Uses: Bonsai; 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; shade tree; small parking lot islands (< 100 square feet in size); narrow tree lawns (3-4 feet wide); specimen; residential street

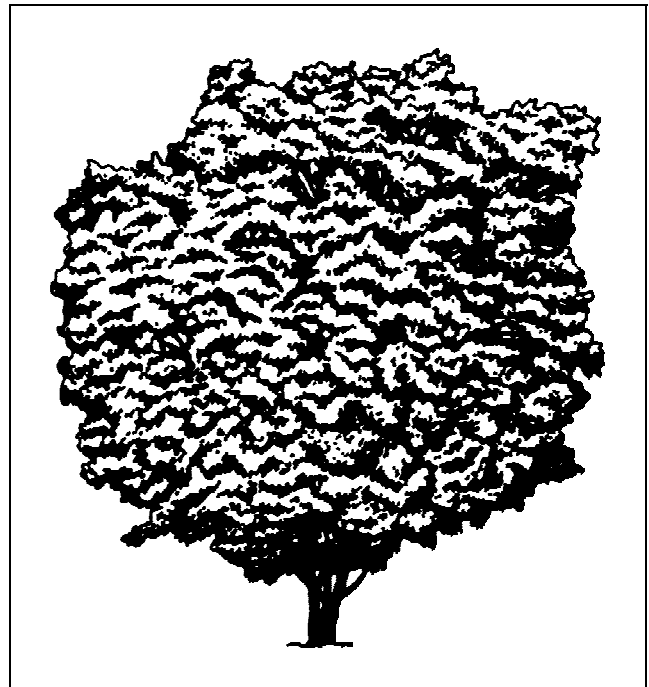


Figure 1. Mature Trident Maple.

tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

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

DESCRIPTION

Height: 30 to 45 feet

Spread: 25 to 30 feet

Crown uniformity: irregular outline or silhouette

Crown shape: oval; round

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Figure 2. Shaded area represents potential planting range.

Crown density: moderate

Growth rate: medium

Texture: medium

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)

Leaf type: simple

Leaf margin: serrate

Leaf shape: star-shaped

Leaf venation: palmate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches; less than 2 inches

Leaf color: green

Fall color: orange; red; yellow

Fall characteristic: showy

Flower

Flower color: yellow

Flower characteristics: showy; spring flowering

Fruit

Fruit shape: oval

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: red

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

Trunk and Branches

Trunk/bark/branches: routinely grown with, or trainable to be grown with, multiple trunks; grow mostly upright and will not droop; showy trunk; tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns

Pruning requirement: requires pruning to develop strong structure

Breakage: resistant

Current year twig color: brown; gray

Current year twig thickness: medium; thin

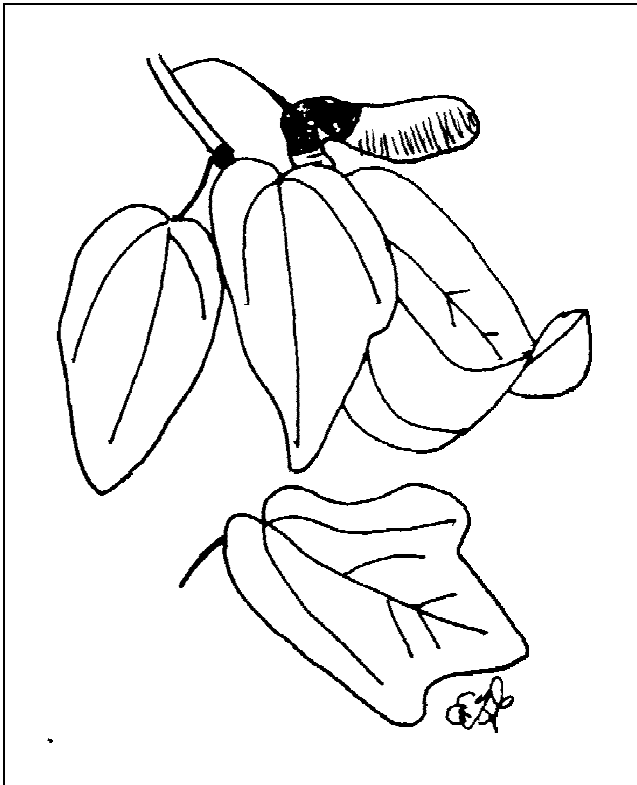


Figure 3. Foliage of Trident Maple.

Culture

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

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

Drought tolerance: moderate

Aerosol salt tolerance: moderate

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

Verticillium wilt susceptibility: susceptible

Pest resistance: no pests are normally seen on the tree

USE AND MANAGEMENT

Trees grown in partial shade can grow much taller (up to 60 feet tall), especially when the crown is touching adjacent trees preventing branches from spreading. The tree is reported to be weak-wooded in

North Carolina but some of this may be due to poor structure, not weak wood. This can be at least partially prevented by pruning major lateral branches so they grow no larger than half the diameter of the main trunk. Be sure that there are no weak crotches with embedded bark, or double or multiple leaders which could cause the tree to split apart. Specify single-leadered trees when planting along streets or in parking lots or other commercial landscapes.

Trident Maple has not been extensively used as a street tree, probably due to its unavailability, but the cultural requirements, size, and form make it a great candidate. It should also be planted more around residences and commercial landscapes due to its pleasing form and small size.

Trident Maple should be planted in full sun or partial shade on any well-drained, acid soil and is quite tolerant of salt, air pollution, wind and drought. Like other maples, some chlorosis can develop in soils with pH over 7 but it is moderately tolerant of soil salt. It performs well in urban areas where soils are often poor and compacted. Trees are easily transplanted due to their shallow root system and are fairly 'clean' trees since they do not drop messy leaves, fruit or flowers.

Several cultivars are known, with trees having dwarf growth, corky bark, variegated leaves, and a variety of leaf shapes. Some particularly good cultivars include: 'Akebono', 'Goshiki Kaede', 'Maruba', and 'Mino Yatsubusa'. They have not been tested extensively in urban areas and will probably be very hard to find.

Propagation is by seed or young-seedling cuttings.

Pests and Diseases

No pests or diseases are of major concern, a very clean tree.