

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. 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.



Figure 1. Mature *Acer buergeranum*: Trident Maple
Credits: Ed Gilman

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 9B (Fig. 2)

Origin: not native to North America

Invasive potential: little invasive potential

Uses: specimen; deck or patio; street without sidewalk; container or planter; shade; parking lot island < 100 sq. ft.; parking lot island 100-200 sq. ft.; parking lot island > 200 sq. ft.; tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft. wide; urban tolerant; highway median; Bonsai

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



Figure 2. Range

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Description

Height: 30 to 45 feet

Spread: 25 to 30 feet

Crown uniformity: irregular

Crown shape: oval, round

Crown density: moderate

Growth rate: moderate

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: less than 2 inches, 2 to 4 inches

Leaf color: green

Fall color: red, orange, yellow

Fall characteristic: showy

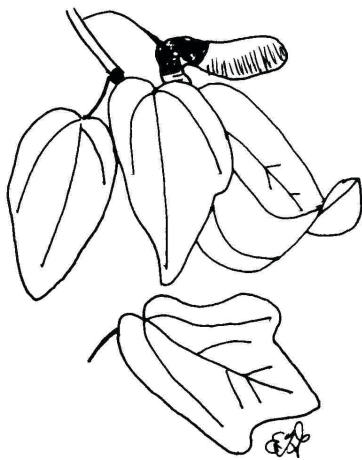


Figure 3. Foliage

Flower

Flower color: yellow

Flower characteristics: showy

Fruit

Fruit shape: oval

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: red

Fruit characteristics: does not attract wildlife; not showy; fruit/leaves not a litter problem

Trunk and Branches

Trunk/bark/branches: branches don't droop; showy; typically multi-trunked; thorns

Pruning requirement: needed for strong structure

Breakage: resistant

Current year twig color: gray, brown

Current year twig thickness: thin, medium

Wood specific gravity: unknown

Culture

Light requirement: full sun, partial sun or partial shade

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

Drought tolerance: moderate

Aerosol salt tolerance: moderate

Other

Roots: not a problem

Winter interest: yes

Outstanding tree: yes

Ozone sensitivity: unknown

Verticillium wilt susceptibility: susceptible

Pest resistance: free of serious pests and diseases

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.