

Acer grandidentatum Bigtooth Maple¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

This North American native reaches 50 feet in height with a broad, spreading canopy and grayish-brown bark which may be either smooth or scaly (Fig. 1). The 2 to 5-inch-diameter, lustrous, dark green, lobed leaves which have a pale underside are noted for their striking brilliance in fall, when they change into beautiful shades of red, orange, and yellow before dropping. The insignificant, hairy, yellow flowers appear among the leaves in late spring and are followed by the production of one-inch-long, winged seeds.

GENERAL INFORMATION

Scientific name: *Acer grandidentatum*

Pronunciation: AY-ser gran-dih-den-TAY-tum

Common name(s): Bigtooth Maple, Rocky Mountain Sugar Maple, Canyon Maple

Family: *Aceraceae*

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

Origin: native to North America

Uses: large parking lot islands (> 200 square feet in size); wide tree lawns (>6 feet wide); reclamation plant; shade tree; specimen; residential street tree

Availability: grown in small quantities by a small number of nurseries

DESCRIPTION

Height: 40 to 50 feet

Spread: 25 to 35 feet

Crown uniformity: irregular outline or silhouette

Crown shape: round

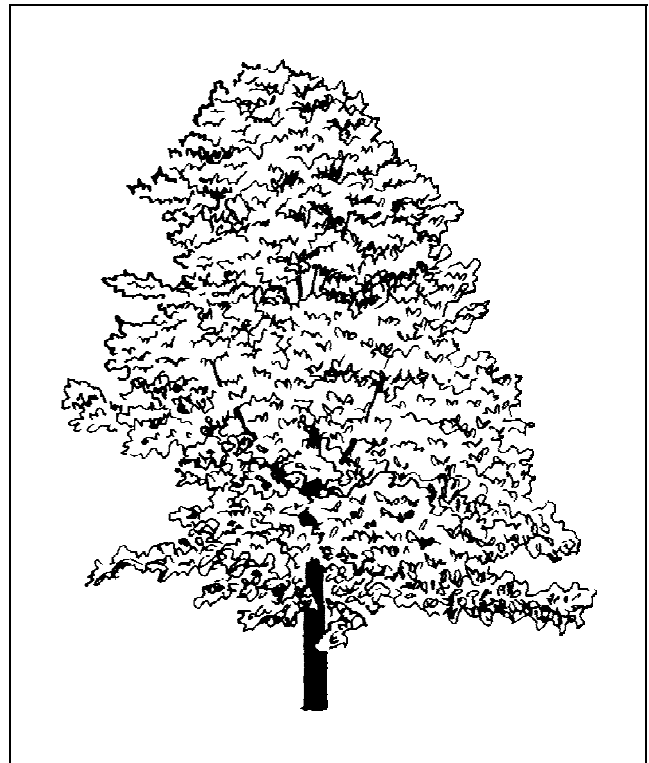


Figure 1. Mature Bigtooth Maple.

Crown density: moderate

Growth rate: medium

Texture: medium

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)

Leaf type: simple

Leaf margin: lobed; dentate

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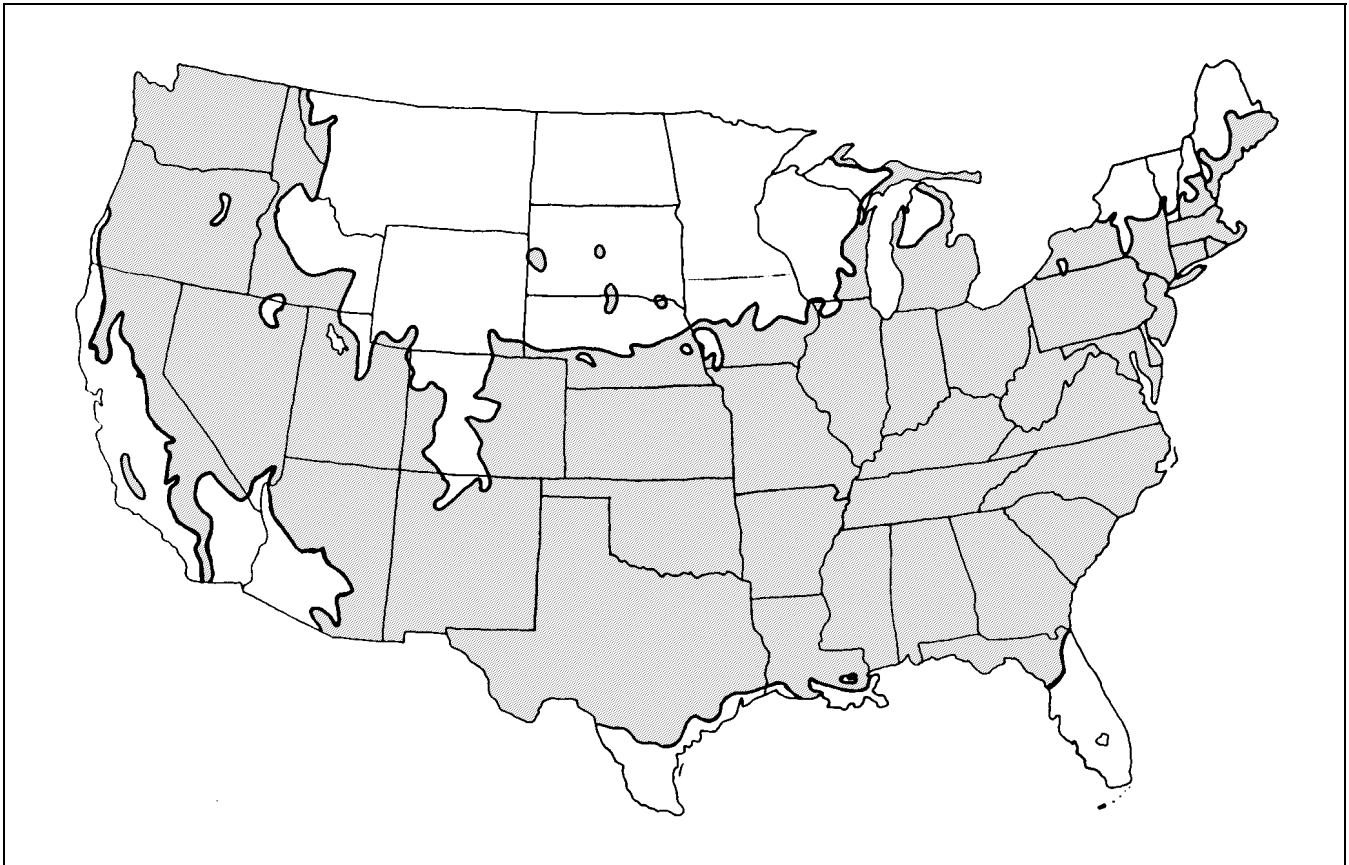


Figure 2. Shaded area represents potential planting range.

Leaf shape: star-shaped
Leaf venation: palmate
Leaf type and persistence: deciduous
Leaf blade length: 4 to 8 inches; 2 to 4 inches
Leaf color: green
Fall color: orange; red; yellow
Fall characteristic: showy

Flower

Flower color: yellow
Flower characteristics: inconspicuous and not showy; spring flowering

Fruit

Fruit shape: elongated
Fruit length: .5 to 1 inch
Fruit covering: dry or hard
Fruit color: green
Fruit characteristics: attracts birds; inconspicuous and not showy; no significant litter problem

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; not particularly showy; should be grown with a single leader; no thorns
Pruning requirement: requires pruning to develop strong structure
Breakage: resistant
Current year twig color: brown; reddish
Current year twig thickness: medium; thin

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: none
Soil salt tolerance: poor

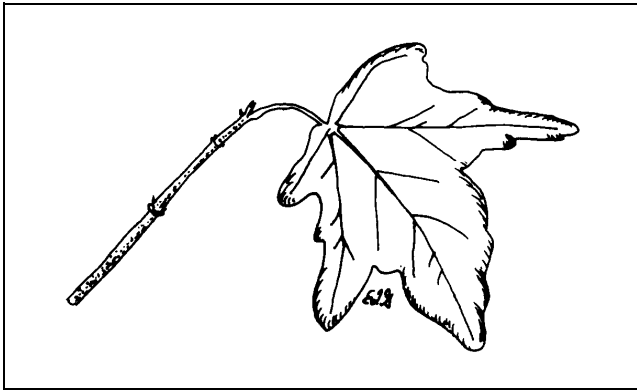


Figure 3. Foliage of Bigtooth Maple.

Other

Roots: surface roots are usually not a problem

Winter interest: no special winter interest

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: susceptible

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

USE AND MANAGEMENT

This Maple may need some training to develop a dominant central leader. Once selected, this leader should more or less stay dominant. This can make Bigtooth Maple a good candidate for planting along streets in an area with plenty of soil space for root expansion.

Bigtooth Maple will grow in full sun or partial shade and is found most often in its natural habitat in moist, well-drained soils. It tolerates limestone soils well. Plants in the wild grown in open areas have withstood long periods of drought.

Pests

No pests are of major concern.

Diseases

No diseases are of major concern.