

Plant Data Sheet
***Acer grandidentatum* (Bigtooth maple)**



www.maple-trees.com/pages/canyon-maple.php

Taxonomy:

Family scientific name: Aceraceae

Family common name: maples

Genus: *Acer*

Species: *grandidentatum*

Species authority: L., Nutt.

Variety: *Acer grandidentatum* var. *grandidentatum*

Variety authority: Nutt

Variety: *Acer grandidentatum* var. *sinuosum*

Variety authority: (Rehd.) Little

Sub-species:

Cultivar:

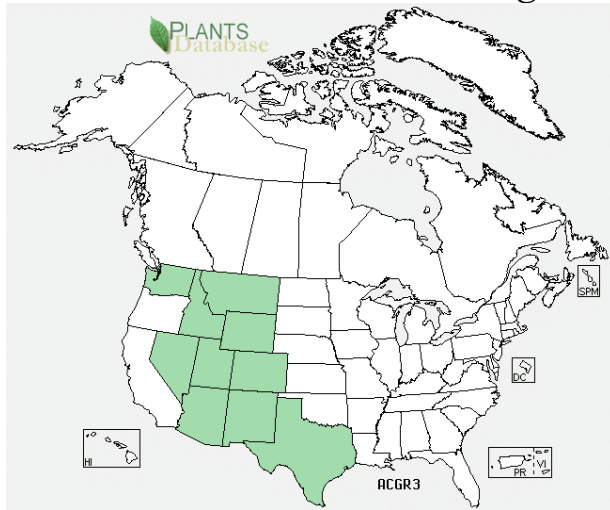
Authority for Sub-species:

Common Name(s): bigtooth maple, canyon maple, sugar maple (5)

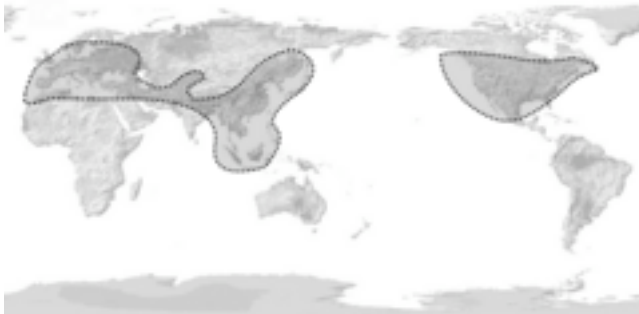
Species Code: ACGR3 (8)

General Information:

General Distribution and Range:



plants.usda.gov/java/profile?symbol=ACGR3



http://content.answers.com/main/content/wp/en-commons/thumb/4/4b/240px-Map_genus_Acer.png

Ecological Distribution:

Has broad ecological amplitude but prefers sites in canyons, ravines, on lower slopes, and along mountain streams (9).

Climate and elevation range:

Most commonly found between 6,900 and 9,400 foot elevations (3). Prefers cool, moist sites but is tolerant to dry areas due to its ability to survive low water potentials (9).

Local habitat, abundance, and commonly associated species:

Commonly associated with Douglas-fir (*Pseudotsuga menziesii*), white fir (*Abies concolor*), narrowleaf cottonwood (*Populus angustifolia*) and ponderosa pine (*Pinus ponderosa*). Typically dominant in these plant communities (9).

Plant strategy type / successional stage:

Seedlings are shade tolerant and grow under sagebrush (*Artemisia tridentate*) canopy and Gambel oak. Bigtooth maple is an early to late successional species (9).

Plant Characteristics:

Tree-shrub lifeform (9). A deciduous tree that reaches 50 feet in height with a large canopy and grayish-brown bark. The leaves are 2 to 5 inches in diameter and are lobed and dark green (4).

Propagation Details:

Ecotype: not available

Propogation Goal: plants

Propogation Method: Usually propagated by seed or grafting onto sugar maple rootstock (10). Maple taxa have also been micropropogated through root tip culture but with little success (1).

Product Type: Propagules: seeds or shoots

Stock Type:

Time to Grow: two years (6)

Target Specifications:

Seedlings can go into individual pots where they should grow until they are at least 20 centimeters before being planted in their permanent positions (6).

Propagule Collection: Much of the seed will be non-viable and it is advised to cut open a few to make sure an embryo exists inside (2). On average, 95% germination can be achieved from viable seed (7).

Propagule Processing/Propagule Characteristics:

Seeds can be slow to germinate, sometimes taking up to two years (7). If the seed is harvested too early, it will produce weak plants if any (6).

Pre-Planting Propagule Treatments:

Pre-soak the stored seed for 24 hours before stratifying for 2-4 months at a temperature anywhere between 1 to 8 degrees Celsius. The seed can be harvested when it has fully developed but before it has dried out and produced any germination inhibitors and should be sown immediately (6).

Growing Area Preparation:

Maple seeds are usually sown 3 to 1 inches deep either using drills or broadcast. A seedbed density from 158 to 320 m² appears most satisfactory. Repellents against animal and fungicide might need to be used to prevent damping off. Shade is also recommended during seedling establishment (11).

Establishment Phase: not available

Length of Establishment Phase: not available

Active Growth Phase: Young shoots should be cut in June or July and have two or three pairs of leaves and one pair of buds at the base. A thin slice of bark should be cut at the base. A rooting hormone will improve rooting. These rooted cuttings should show growth during summer before being uprooted in order to ensure survival in winter (6).

Length of Active Growth Phase: not available

Hardening Phase: Seedlings will be ready to move outside in early May before excessively hot weather but after the last winter freeze. Water every day for large seedlings and every other day for smaller ones (3).

Length of Hardening Phase: not available

Harvesting, Storage and Shipping: No information provided besides seed viability. In a study of seed viability, 8.7% of bigtooth maple seeds remained viable after storage at 68 °F (20°C) for 25 days (9).

Length of Storage: not available

Guidelines for Outplanting / Performance on Typical Sites: not available

Other Comments: Seed rain dispersal distance for maple seeds is reported to be at least 100 meters under prime conditions (11).

Information Sources:

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References:

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4. Gilman, Edward F and Watson, Dennis G. November 1993. "Acer grandidentatum Bigtooth Maple." US Department of Agriculture: Fact Sheet ST-16. <http://hort.ufl.edu/trees/ACEGRAA.pdf>.
5. "ITIS Report: *Acer grandidentatum* Nutt." 2 May 2008. http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=28760.
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11. Zasada, John C. and Strong, Terry F. "Aceraceae: Maple Family." <http://www.nsl.fs.fed.us/wpsm/Acer.pdf>.