Appendix X. Results modeled with i-Tree Species Selector Utility

The full "Results modeled with i-Tree Species Selector Utility" document is available for download at www.instituteforenvironmentalsolutions.org through the publication link.

All Species for Selected Functions in 10%Categories

Golden, Colorado

SCALE	SCIENTIFIC NAME	COMMON NAME	SENSITIVITY		
			O3	NO2	SO2
0-10%	ACER PLATANOIDES	NORWAY MAPLE	S		I
	ACER PSEUDOPLATANUS	SYCAMORE MAPLE			
	ACER RUBRUM	RED MAPLE	I	I	
	ACER SACCHARUM	SUGAR MAPLE			
	ACER X FREEMANII	FREEMAN MAPLE			
	AESCULUS FLAVA	YELLOW BUCKEYE	S		
	AESCULUS GLABRA	OHIO BUCKEYE	I		
	AESCULUS HIPPOCASTANUM	HORSECHESTNUT			
	BETULA ALLEGHANIENSIS	YELLOW BIRCH	I	S	
	BETULA LENTA	BLACK BIRCH		S	
	BETULA PAPYRIFERA	PAPER BIRCH		S	
	CELTIS LAEVIGATA	SUGARBERRY			
	CELTIS OCCIDENTALIS	NORTHERN HACKBERRY			
	CORYLUS COLURNA	TURKISH HAZELNUT			
	FAGUS GRANDIFOLIA	AMERICAN BEECH			
	FAGUS SYLVATICA	EUROPEAN BEECH			
	FRAXINUS AMERICANA	WHITE ASH	S		
	FRAXINUS EXCELSIOR	EUROPEAN ASH			
	FRAXINUS PENNSYLVANICA	GREEN ASH	S	S	
	FRAXINUS QUADRANGULATA	BLUE ASH			
	GINKGO BILOBA	GINKGO			
	JUGLANS AILANTHIFOLIA**	JAPANESE WALNUT			
	JUGLANS JAMAICENSIS**	WEST INDIAN WALNUT			

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Appendix B. Tree Selection List, Excerpt from:
McPherson, E.G., Simpson, J.R., Peper, P.J., Maco, S.E., Xiao, Q, Hoefer, P.J. (2003, March.)
Northern Mountain and Prairie Community Tree Guide: Benefits, Costs, and Strategic Planting.

5. Tree Selection List for Northern Mountain and Prairie Communities

In this chapter, recommended trees and their attributes are presented to help select the right tree for specific planting situations throughout the Northern Mountain and Prairie region.

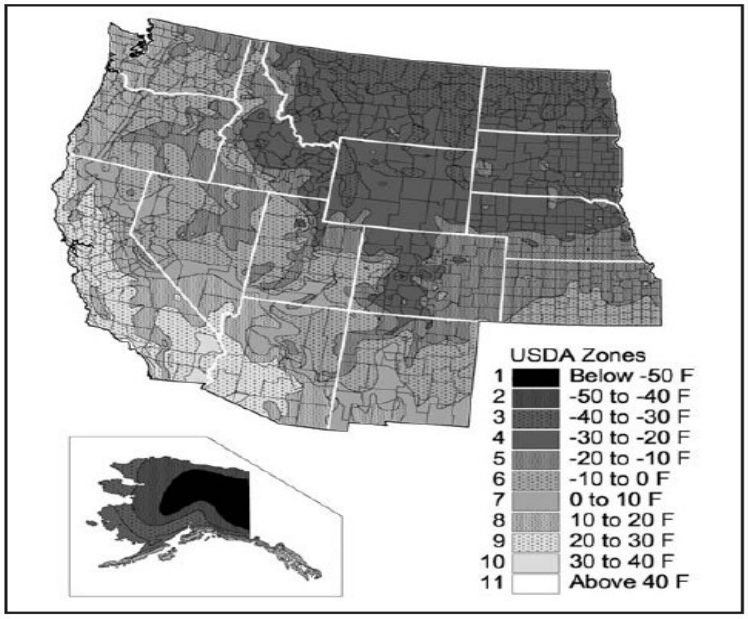
What is the geographic scope?

The Northern Mountain and Prairie Region is extensive and diverse. It covers much of the northern interior western states. Parts of 13 states make up this region. (Alaska was not included in this tree list, even though most of it is considered cold and snowy.) Elevations range from 1,000 feet (305 m) to over 14,000 feet (4,267 m). One of the highest communities is in Colorado at 10,000 feet (3,048 m). There is also a 900 mile (1,448 km) latitude change extending from approximately the 37th parallel in the south to the 49th parallel in the north.

Soil characteristics within this region vary greatly. Most soils will be alkaline. Semi-arid and arid regions found further west will be more alkaline than conditions found in the eastern half of the plains states. Selecting trees that can tolerate soils with high alkalinity is especially important in these areas.

Average rainfall ranges from seven inches (180 mm) in the western arid regions to 30 inches (762 mm) in the mountains and eastern end of the Great Plains. However, supplemental irrigation often occurs in landscapes to provide the necessary moisture for tree survival. Mulching and other moisture saving practices are encouraged to save water.

USDA Hardiness Zones found in this region range from 3 to 7 (Figure 16). Of course, the higher elevations of the Rockies get into Zones 1 and 2.



16. Recommended trees for the Northern Mountain and Prairie region grow well in USDA Hardiness Zones 1-6 and are acceptable for use by a number of municipalities in the region.

A characteristic common to this area, and detrimental to many trees, is the great fluctuation of temperature. This can occur between night and day, but even more devastating are the rapid fluctuations associated with winter conditions. Balmy conditions can occur during winter, but a cold front can cause temperatures to drop as much as 70-80°F (40-45°C) in less than 24 hours.

What are the selection criteria? A large number of tree species can grow in this region with proper irrigation and cultivation. The trees in this list were selected by urban and community forestry professionals in the 13-state area.