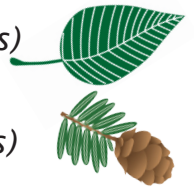


# WISCONSIN URBAN TREE KEY

## Broadleaf (flat leaves) & Conifers (needles/scales)



### BROADLEAF TREES - IDENTIFICATION METHODS

<p>Alternate</p>	<p>Opposite</p>	<p>Petiole</p> <p>Simple</p>	<p>Leaf</p> <p>Leaflet</p> <p>Pinnately compound</p>	<p>Bipinnately compound</p>
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**Leaf arrangement**      **Leaf type**

### SAMPLE

Species name

Leaf

Fruit or flower

Small tree <25ft at maturity

Leaf length

Orange = NR40 regulated invasive tree in Wisconsin

## OPPOSITE LEAVES



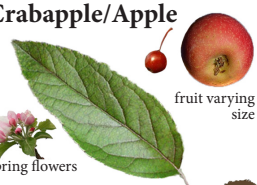
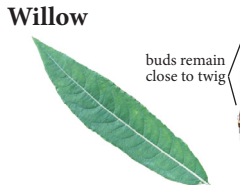








<p><b>Norway Maple</b></p> <p>fruits are wide, unlike other maples</p> <p>petioles produce milky sap when broken</p> <p>3-6"</p> <p>some varieties have purple leaves</p>	<p><b>Silver Maple</b></p> <p>mature trees have peely, grey bark</p> <p>4-6"</p>	<p><b>Sugar Maple</b></p> <p>buds are pointy</p> <p>petioles don't produce milky sap</p> <p>4-6"</p>	<p><b>Amur Maple</b></p> <p>2-2.5"</p>
<p><b>Freeman Maple</b></p> <p>most don't produce fruits</p> <p>cross between silver and red maples</p> <p>3-5"</p>	<p><b>Red Maple</b></p> <p>fruit often reddish</p> <p>2-5"</p>	<p><b>Boxelder</b></p> <p>3-7 leaflets</p> <p>only maple with compound leaves</p> <p>2-4" (leaflets)</p>	<p><b>Japanese Tree Lilac</b></p> <p>prominent lenticels on the bark</p> <p>bushy, fragrant late spring flowers</p> <p>3-4"</p>
<p><b>Buckeye/Horsechestnut</b></p> <p>some husks have spines</p> <p>3-6" (leaflets)</p>	<p><b>Northern Catalpa</b></p> <p>showy white flowers</p> <p>leaves are huge!</p> <p>7-12"</p> <p> pods 12-24" long!</p>	<p><b>Green Ash</b></p> <p>leaflets have very short petioles</p> <p>5-9 leaflets</p> <p>3-5" (leaflets)</p>	<p><b>White Ash</b></p> <p>leaflets have obvious petioles</p> <p>5-9 leaflets</p> <p>3-5" (leaflets)</p>

## ALTERNATE LEAVES (CONTINUED ON BACK)






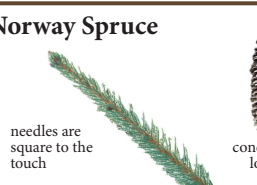



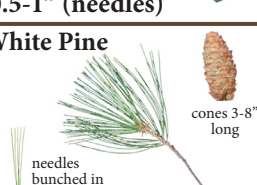

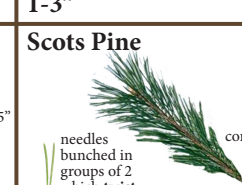


<p><b>Honeylocust</b></p> <p>sometimes bipinnately compound</p> <p>leaflets opposite, but leaves alternate</p> <p>0.5-1" (leaflets)</p> <p> pods 6-8" long</p>	<p><b>Black Locust</b></p> <p>leaflets opposite, but leaves alternate</p> <p>1-2" (leaflets)</p> <p> pods 2-4" long</p>	<p><b>Kentucky Coffeetree</b></p> <p>bipinnately compound</p> <p>leaflets opposite, but leaves alternate</p> <p>1-3" (leaflets)</p> <p> pods 6-10" long</p>	<p><b>Black Walnut</b></p> <p>leaflets opposite, but leaves alternate</p> <p>2-4" (leaflets)</p>	<p><b>Mountain-Ash</b></p> <p>leaflets have jagged edges</p> <p>leaflets opposite, but leaves alternate</p> <p>2-3" (leaflets)</p>
<p><b>Shagbark Hickory</b></p> <p>leaflets opposite, but leaves alternate</p> <p>3-7" (leaflets)</p>	<p><b>Basswood/Am. Linden</b></p> <p>4-6"</p>	<p><b>Littleleaf Linden</b></p> <p>1-3"</p>	<p><b>Hackberry</b></p> <p>bark is very corky</p> <p>leaf bottoms have nipple galls</p> <p>2-5"</p>	<p><b>Sumac</b></p> <p>fruits stay through winter at stem end</p> <p>leaflets opposite, but leaves alternate</p> <p>2-4" (leaflets)</p>
<p><b>Ironwood/Hophornbeam</b></p> <p>2-5"</p>	<p><b>Black Cherry</b></p> <p>black fungus common on branches</p> <p>bark is dark, scaly and has lenticels</p> <p>2-5"</p>	<p><b>Chokecherry</b></p> <p>black fungus common on branches</p> <p>1-3.5"</p>	<p><b>Witchhazel</b></p> <p>fall/winter flowers</p> <p>2.5-6"</p>	<p><b>Callery Pear</b></p> <p>buds very hairy</p> <p>glossy leaves</p> <p>1.5-3"</p>



# ALTERNATE LEAVES

<b>Quaking Aspen</b>  1-3" flat petiole flower	<b>Cottonwood</b>  3-5" flat petiole flower	<b>European Alder</b>  2-4" flowers remain in winter	<b>Elm</b>  3-8" uneven leaf base fruits have flat, papery wings many varieties of urban elm	<b>Siberian Elm</b>  1-2.5" uneven leaf base fruits have flat, papery wings
<b>Crabapple/Apple</b>  1-4" spring flowers fruit varying size	<b>Willow</b>  2-6" buds remain close to twig	<b>Serviceberry</b>  2-4" usually multi-stemmed trunk showy spring flowers	<b>Hawthorn</b>  2-3" leaf shape varies and leaves are often glossy showy spring flowers not all trees have thorns, but many do	
<b>Beech</b>  2.25-4.75" long, copper buds leaves thin like paper distinctive smooth bark	<b>Sycamore / Plane tree</b>  4-9" distinctive scaly bark	<b>Ginkgo</b>  2-4" twigs have many spurs where leaves grow stinky fruit	<b>Redbud</b>  3-4.5" showy spring flowers pods 2-3" long	<b>Musclewood</b>  1-5" smooth, groovy bark
<b>Paper Birch</b>  2-4" bark peely with black lines (lenticels)	<b>River Birch</b>  1.5-3.25" reddish bark that peels in plates	<b>Buckthorn</b>  1-3.5" leaves often glossy and remain green into fall	<b>Mulberry</b>  2-5" leaf shape varies and leaves are often glossy two types of mulberry - only white mulberry invasive, but more common	
<b>White Oak</b>  5-9"	<b>Swamp White Oak</b>  2.75-6" leaf underside very light colored acorns on longer stalks (0.5-4") than white oak	<b>Bur Oak</b>  4.75-7" end 1/3 of leaf often widest part acorns very hairy	<b>Red Oak</b>  5-10"	<b>Pin Oak</b>  2-6"

# CONIFERS

<b>Arborvitae/White Cedar</b>  often a small tree 0.5-1" (scales)	<b>Red Cedar</b>  two types of foliage - scales and needles 0.1-0.2" (scales/needles)	<b>Larch/Tamarack</b>  soft needles dropped in winter 0.75" - 1.25" (needles)	<b>Bald Cypress</b>  soft needles dropped in winter 0.5-0.75" (needles)	<b>Balsam Fir</b>  needles flat to the touch cones 2-4" long and grow upright on upper branches 0.5-1" (needles)
<b>Norway Spruce</b>  needles are square to the touch cones 4-7" long! branches sag 0.5-1" (needles)	<b>White Spruce</b>  needles square to the touch cones 1.5-2.5" long 1-3"	<b>Blue Spruce</b>  needles square to the touch and very sharp cones 3-4" long 0.5-1" (needles)	<b>White Fir</b>  needles flat to the touch cones 3-6" long and grow upright on upper branches 1-2.5" (needles)	
<b>White Pine</b>  needles bunched in groups of 5 cones 3-8" long 2-5" (needles)	<b>Jack Pine</b>  needles bunched in groups of 2 cones 1-1.5" long 0.75-1.5" (needles)	<b>Scots Pine</b>  needles bunched in groups of 2 which twist together cones 1-3" long 1-2" (needles)	<b>Austrian Pine</b>  needles bunched in groups of 2 cones 2-4" long 3-7" (needles)	<b>Red Pine</b>  needles bunched in groups of 2 and break when bent cones 2-2.5" long 4.5-7" (needles)