WISCONSIN URBAN TREE KEY
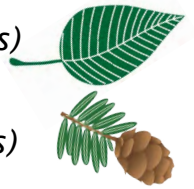
Broadleaf *(flat leaves)* & Conifers *(needles/scales)*

BROADLEAF TREES - IDENTIFICATION METHODS

Leaf arrangement
- Alternate
- Opposite

Leaf type
- Simple (Petiole)
- Pinnately compound (Leaf / Leaflet)
- Bipinnately compound

SAMPLE

Species name
- Leaf
- Fruit or flower
- Small tree <25ft at maturity
- Leaf length

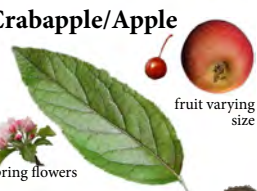Orange = NR40 regulated invasive tree in Wisconsin

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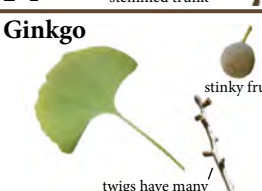
OPPOSITE LEAVES

Norway Maple — some varieties have purple leaves; fruits are wide, unlike other maples; petioles produce milky sap when broken — 3-6"

Silver Maple — mature trees have peely, grey bark — 4-6"

Sugar Maple — buds are pointy; petioles don't produce milky sap — 4-6"

Amur Maple — 2-2.5"

Freeman Maple — most don't produce fruits; cross between silver and red maples — 3-5"

Red Maple — fruit often reddish — 2-5"

Boxelder — 3-7 leaflets; only maple with compound leaves — 2-4" (leaflets)

Japanese Tree Lilac — prominent lenticels on the bark; bushy, fragrant late spring flowers — 3-4"

Buckeye/Horsechestnut — some husks have spines — 3-6" (leaflets)

Northern Catalpa — showy white flowers; leaves are huge!; pods 12-24" long! — 7-12"

Green Ash — leaflets have very short petioles; 5-9 leaflets — 3-5" (leaflets)

White Ash — leaflets have obvious petioles; 5-9 leaflets — 3-5" (leaflets)
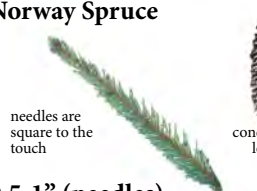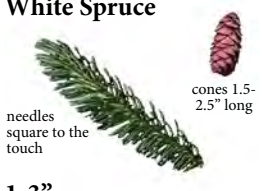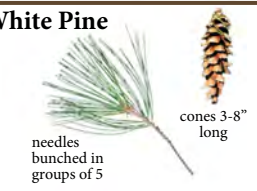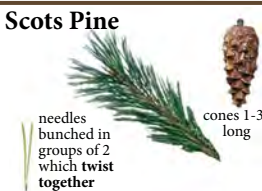
ALTERNATE LEAVES (CONTINUED ON BACK)

Honeylocust — sometimes bipinnately compound; pods 6-8" long; leaflets opposite, but *leaves alternate* — 0.5-1" (leaflets)

Black Locust — has stout thorns; pods 2-4" long; leaflets opposite, but *leaves alternate* — 1-2" (leaflets)

Kentucky Coffeetree — bipinnately compound; pods 6-10" long; leaflets opposite, but *leaves alternate* — 1-3" (leaflets)

Black Walnut — leaflets opposite, but *leaves alternate* — 2-4" (leaflets)

Mountain-Ash — leaflets have jagged edges; leaflets opposite, but *leaves alternate* — 2-3" (leaflets)

Shagbark Hickory — leaflets opposite, but *leaves alternate* — 3-7" (leaflets)

Basswood/Am. Linden — 4-6"

Littleleaf Linden — 1-3"

Hackberry — bark is very corky; leaf bottoms have nipple galls — 2-5"

Sumac — fruits stay through winter at stem end; leaflets opposite, but *leaves alternate* — 2-4" (leaflets)

Ironwood/ Hophornbeam — 2-5"

Black Cherry — bark looks like burnt potato chips; has small lines on it (lenticels); black fungus common on branches; tiny glands at base of leaf — 2-5"

Chokecherry — black fungus common on branches; tiny glands at base of leaf — 1-3.5"

Witchhazel — fall/winter flowers — 2.5-6"

Callery Pear — buds very hairy; glossy leaves — 1.5-3"

ALTERNATE LEAVES

Quaking Aspen
flower
1-3"
flat petiole

Cottonwood
flower
3-5"
flat petiole

European Alder
flowers remain in winter
2-4"

Elm
fruits have flat, papery wings
many varieties of urban elm
3-8"
uneven leaf base

Siberian Elm
fruits have flat, papery wings
1-2.5"
uneven leaf base

Crabapple/Apple
fruit varying size
spring flowers
1-4"

Willow
buds remain close to twig
2-6"

Serviceberry
showy spring flowers
2-4"
usually multi-stemmed trunk

Hawthorn
leaf shape varies and leaves are often glossy
showy spring flowers
not all trees have thorns, but many do
2-3"

Beech
long, copper buds
distinctive smooth bark
leaves thin like paper
2.25-4.75"

Sycamore / Plane tree
distinctive scaly bark
4-9"

Ginkgo
stinky fruit
twigs have many spurs where leaves grow
2-4"

Redbud
pods 2-3" long
3-4.5"
showy spring flowers

Musclewood
smooth, groovy bark
1-5"

Paper Birch
bark peely with black lines (lenticels)
2-4"

River Birch
reddish bark that peels in plates
1.5-3.25"

Buckthorn
leaves often glossy and remain green into fall
1-3.5"

Mulberry
leaf shape varies and leaves are often glossy
two types of mulberry - only white mulberry invasive, but more common
2-5"

White Oak
5-9"

Swamp White Oak
acorns on longer stalks (0.5-4") than white oak
leaf underside very light colored
2.75-6"

Bur Oak
acorns very hairy
end 1/3 of leaf often widest part
bark is very corky
4.75-7"

Red Oak
5-10"

Pin Oak
2-6"

CONIFERS

Arborvitae/White Cedar
often a small tree
0.5-1" (scales)

Red Cedar
two types of foliage - scales and needles
0.1-0.2" (scales/needles)

Larch/Tamarack
soft needles dropped in winter
0.75"-1.25" (needles)

Bald Cypress
soft needles dropped in winter
0.5-0.75" (needles)

Balsam Fir
needles flat to the touch
cones 2-4" long and grow upright on upper branches
0.5-1" (needles)

Norway Spruce
needles are square to the touch
branches sag
cones 4-7" long
0.5-1" (needles)

White Spruce
needles square to the touch
cones 1.5-2.5" long
1-3"

Blue Spruce
needles square to the touch and very sharp
cones 3-4" long
0.5-1" (needles)

White Fir
needles flat to the touch
cones 3-6" long and grow upright on upper branches
1-2.5" (needles)

White Pine
needles bunched in groups of 5
cones 3-8" long
2-5" (needles)

Jack Pine
needles bunched in groups of 2
cones 1-1.5" long
0.75-1.5" (needles)

Scots Pine
needles bunched in groups of 2 which **twist together**
cones 1-3" long
1-2" (needles)

Austrian Pine
needles bunched in groups of 2
cones 2-4" long
3-7" (needles)

Red Pine
needles bunched in groups of 2 **and break when bent**
cones 2-2.5" long
4.5-7" (needles)