

Our Most Common Trees and Shrubs and their problems



By Sharon Morrisey

Consumer Horticulture Agent

Milwaukee County UW-Extension

Thousands of species

- Only a handful used in local landscapes
- Some are “dogs”
- Some are “old reliables”
- Imitation or “Monkey see, Monkey do”
- Some you don’t even have to buy
- There are better choices

MGVs need to know these

- To recognize them
- To know what's normal for them
- To know their common problems

Trees and shrubs

- Most common but not the best
- Can be lived with
- Trash Trees – destroy on sight



Trees

- Deciduous
 - Shade trees
 - Small ornamental trees
- Needle Evergreens
 - Large

Shrubs

- Deciduous
 - Large & Medium
 - (No small)
- Needle Evergreens
 - Medium
 - Small shrubs & groundcovers

Plant Nomenclature

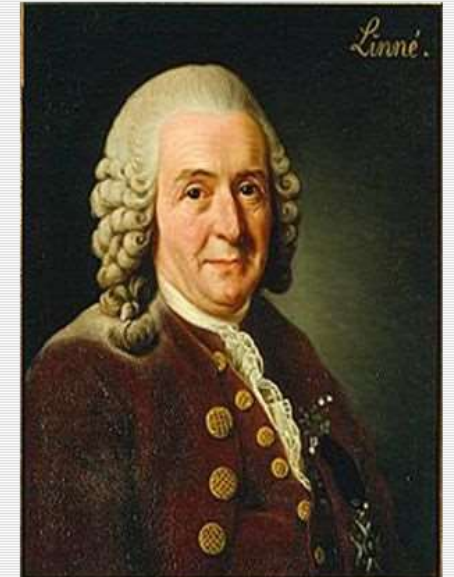
- Binomial
 - *Genus species*
 - ‘Cultivar’
 - Sometimes:
 - Trademark name®
 - Variety (var.)
 - Subspecies (subsp.)

School of Science and Technology, Online Counseling Resource...

Carl Linnaeus(1707-1778)

He is remembered for his three most important contribution ...

1. For providing systematic manner for **easy identification** of number of plants.
2. For giving some important **terms in systematics**, namely **Kingdom, Class, order, Genus and Species.**
3. **The Bionomial nomenclature.**



Father of Taxonomy.

Common Deciduous Shade Trees

Silver Maple

(*Acer saccharinum*)

Leaves:

- Opposite
- Palmate with sharply pointed lobes
- Light green on top, silvery-green below
- Bark silver; peels in long, vertical strips

Fruit:

- “helicopters” (schizocarps)

Fall color:

- Poor yellow



Silver Maple

Problems:

- Weak wooded due to fast growth; break-up easily in storms; messy
- Fruit are messy; clog gutters, sprout, attract boxelder bugs
- Roots can clog drain tiles
- Chlorosis

Pests:

- Leaf galls – bladder, spindle and felt
- Anthracnose
- Verticillium wilt



UGA4822086

Norway Maple

(*Acer platanoides*)

Most common street tree in metro Milwaukee!

- Large, coarsely lobed leaves
- Bright yellow flower clusters in spring
- Brilliant yellow fall color
- Many cultivars
 - Some have almost black leaves all summer – ‘Crimson King’
 - Some red only in spring turning green by summer with poor fall color – ‘Schwedlerii’ and ‘Deborah’
 - Some red all summer long – ‘Crimson King’ and ‘Royal Red’
 - ‘Columnare’ is stiffly upright





(c) 2002 Gary J. Kling

‘Columnare’



'Royal Red'



'Crimson King'

Norway Maple

Problems:

- Very dense shade, difficult to grow grass under, bare soil erodes, roots become exposed
- Girdling root if planted too deeply
- Has become invasive

Pests:

- Verticillium wilt
- Tar spot



Sugar Maple

(Acer saccharum)

State Tree of Wisconsin!

Leaves: 3-5 lobed; symbol of Canada

Fall color: SPECTACULAR combination of yellow, gold, pink, red, orange.

Buds: terminal – 3 sharp-pointed with scales.

Bark: in long strips



Sugar Maple

Problems:

- Not urban tolerant – air pollution, foot traffic in root zone, restricted root zone, compacted soil, wet soil intolerant

Pests:

- None serious



Red Maple

(*Acer rubrum*)

Leaves: three-lobed all facing similar direction.

Bark: Smooth and silver-gray

Fall color: bright red

Buds, flowers, leaves all red

Tolerates wet soil conditions.

- Cultivars selected for red fall color
 - 'Autumn Flame', 'October Glory' and 'Red Sunset'



Red Maple

Problems:

- Alkaline-induced chlorosis in high pH soil
- Don't live long enough to have other problems



Green Ash

(*Fraxinus pennsylvanica*)

Leaves:

- Opposite
- Pinnately compound, 5-9 leaflets, shiny dark green above, slightly fuzzy below

Bark:

- Gray, diamond pattern

Flowers:

- Male turn brown and persist 2 yrs.

Fruits:

- Clusters of winged seeds

Very adaptable. Tolerate wet soil.



Green Ash

Problems:

- Leaf drop in early summer.
- Ash decline – gradually lose vigor and die.

Pests:

- Emerald ash borer
- Ash plant bug
- Ash plant hopper
- Male flower gall ('Marshall's Seedless' few flowers)
- Anthracnose
- Ash yellows



Ash Anthracnose



Joe Boggs,



Ash Plant Bug



Male flower gall

White Ash

(*Fraxinus americana*)

Leaves:

- Opposite
- Pinnately compound, 7 *stalked* leaflets

Fall Color: yellow, purple, maroon

(‘Autumn Purple’ seedless, rounded, fall leaves purple on outside of tree and yellow on interior)

Bark:

- Gray, diamond pattern

Flowers:

- Male turn brown and persist 2 yrs.

Fruits:

- Clusters of winged seeds

Very adaptable. Tolerate wet soil. Leafs out late.



White Ash

Problems:

- All same as Green ash.



'Autumn Purple' White Ash

Thornless Honeylocust

(*Gleditsia triacanthos* var. *inermis*)

Leaves:

- Alternate
- Pinnately or bi-pinnately compound, leaflets very small.

Fall Color: yellowish

Flowers: polygamodioecious

(male, female, perfect combined)

Fruits:

- Long, reddish-brown pod sometimes curled
- (Fruitless cvs.- 'Moraine', 'Shade Master', 'Green Glory')

Stems: zig-zag

Produces light shade, very adaptable – urban, salt, poor dry.



Thornless Honeylocust

Problems:

- Pods very messy, but may not be produced every year.

Pests:

- Honeylocust plant bug
- Nectria canker can kill



Littleleaf Linden

(Tilia cordata)

Leaves: Alternate, large, heart-shaped, can be silvery underneath.

Fall Color: yellowish green

Flowers: clustered with papery bract, pleasantly fragrant in June, attract bees

Habit: formal, pyramidal, tear-drop

Adaptable except dry conditions.



Littleleaf Linden

Problems:

- Bees visiting flowers is allergic.

Pests:

- Japanese beetles
- Aphids which secrete honeydew where sooty mold then grows.



Paper Birch

(*Betula papyrifera*)

Leaves:

- Alternate, simple, toothed, pointed

Stems: shiny, reddish brown with warty glands.

Fall Color: yellow

Bark: white, peeling, black lines; black triangles at branch attachment.

Flowers: male catkins in fall, female at ends of twigs form in spring.

Habit: often multi-stemmed

Requires cool, moist rootzone; sun to partial shade.



Paper Birch

Problems:

- Intolerant of hot, dry sites in full sun.
- Stems may outcompete one another.

Pests:

- Bronze birch borer will kill w/o treatment.
- Birch leafminer
- Iron chlorosis



River Birch

(Betula nigra)

Bark: cinnamon-colored, peeling becoming gray and ridged with age.

Pests:

- Tolerant of bronze birch borer
- Susceptible to Birch leafminer
- Susceptible to alkaline soil induced iron chlorosis



Karen Russ, ©HGIC, Clemson Extension



Red Oak

(Quercus rubra)

Leaves: 7 – 11 pointed lobes;
alternate; fall color – russet to
red

Acorns: 1” long, not quite round
with flat, short cap.

Bark: upper portion with silvery
lines (‘ski trails’)

Culture:

- Adaptable except alkaline soil.
- Transplants well.
- Moderately fast growth.



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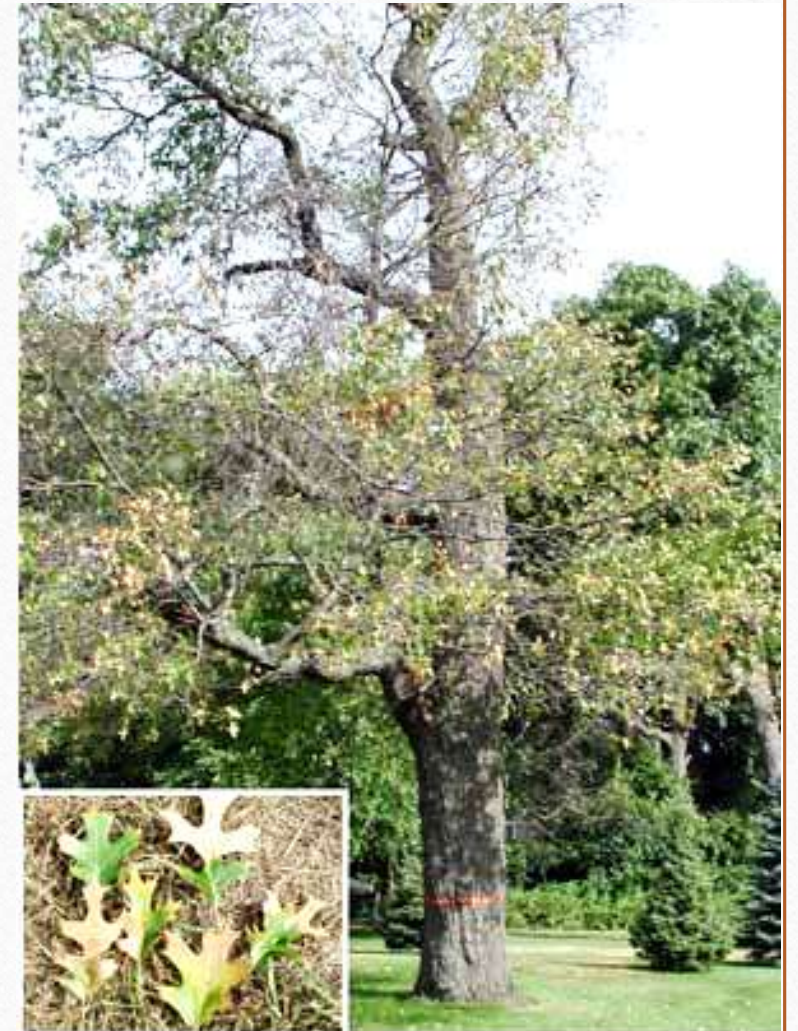
Red Oak

Problems:

- Intolerant of construction over root zone – protection required. Symptoms may take years to appear.

Pests:

- Oak wilt is more severe and terminal on red oak than white.



Oak wilt quickly kills most infected trees. Wilting leaves turn brown at the margins (inset) and fall as the tree dies.

White Oak

(Quercus alba)

Voted the National Tree in 1998!

Leaves: 5-9 rounded lobes; alternate; fall color – brown – wine-colored.

Acorns: $\frac{3}{4}$ ", oblong, no or short stem, cap only over top $\frac{1}{4}$ of acorn.

Bark: beige-gray with irregular, thin plates; often light-colored patches of a non-pathogenic fungus.

Culture:

- Prefers moist, slightly acid soil but tolerates higher pH and dry conditions.



White Oak

Problems:

- Very sensitive to construction in rootzone.
- Difficult to transplant due to tap root; nurseries root prune several times before sale to make roots more fibrous.

Pests:

- Susceptible to Oak wilt but often recovers.



Weeping Willow

(*Salix alba* 'Tristis' or
Salix babylonica)

Leaves: alternate, lanceolate, shiny green on top, whitish-green below. Fall color: ratty yellow green mixture.

Stems: slender, bright yellow fading to greenish in summer

Flowers: before leaves in spring; male and female loose catkins

Habit: draping to the ground in tufted mounds (like the Truffala Tree!)

Culture: Very large tree; weak wooded prefer moist soil at water's edge but tolerates dryer conditions.



Weeping Willow

Problems:

- Messy with long, thin branchlets being broken off with any light wind.
- Branches easily broken during storms – branches and parts of the trunk.
- Relatively short-lived

Pests:

- Cankers and wilts



Most Common Deciduous Small Trees

- Crabapple
- Flowering plum – ‘Newport’
- Japanese Maples
- Magnolias – Saucer, Star
- Serviceberry
- Pagoda dogwood

Flowering Crabapple

(*Malus x. spp.*)

Leaves: Alternate, shape varies, green or dark red.

Flowers: Early to mid-May, 5 petals, in clusters; white to pink to rose to red; can be different color in bud than full flower.

Fruit: Small apple up to 2"; colors are shades of red, orange, yellow; may drop quickly or persist.

Habit: varies from weeping to upright; dwarf to 30'.



'Sentinel'



'Anne E'
(weeping)



'Prairifire'

Flowering Crabapple

Problems:

- Fruit are messy if near a walk, drive or patio and don't persist.
- rootsuckers

Pests:

- Apple scab
- Cedar apple rust
- Fireblight

SELECT RESISTANT
VARIETIES!



'Ormiston Roy'



Apple scab disease

Flowering Plums/ Cherries (*Prunus spp.*)

Leaves: simple, alternate, purple in cultivars.

Flowers: pink, in clusters, early spring.

Fruit: small if any in ornamental cultivars.

Habit:

- 'Newport Plum' – small, rounded tree.



Flowering Plum/ Cherries

Problems:

- Short-lived due to diseases
- ‘Schubert’s’ – new growth is red, older growth dark purple-red.

Pests:

- Many
- Black knot (fungus)
- Bacterial cankers
- Shothole bacterial leaf disease
- Peachtree borers



Japanese Maple (*Acer japonica*)

Leaves: opposite, lobed in many different ways depending on species and cultivar, usually red or purple becoming brighter in fall and orange or yellow.

Habit: usually tiered and/or weeping, picturesque.

Bark: can be green when young in some cultivars



Japanese Maple

Problems:

- No Japanese Maple is cold-hardy in southern WI (zone 5).
- Plant in VERY protected location.
- Korean Maple (*Acer pseudosieboldianum*) is hardy. Leaves coarsely lobed, green tinged red in spring, green in summer, lovely orange and red in fall.



Saucer Magnolia

(Magnolia soulangiana)

Habit:

- Larger, rounded, with picturesque, coarse branches and leaves.
- Large, fuzzy flower buds present all winter.

Bark: Silver-gray

Flowers:

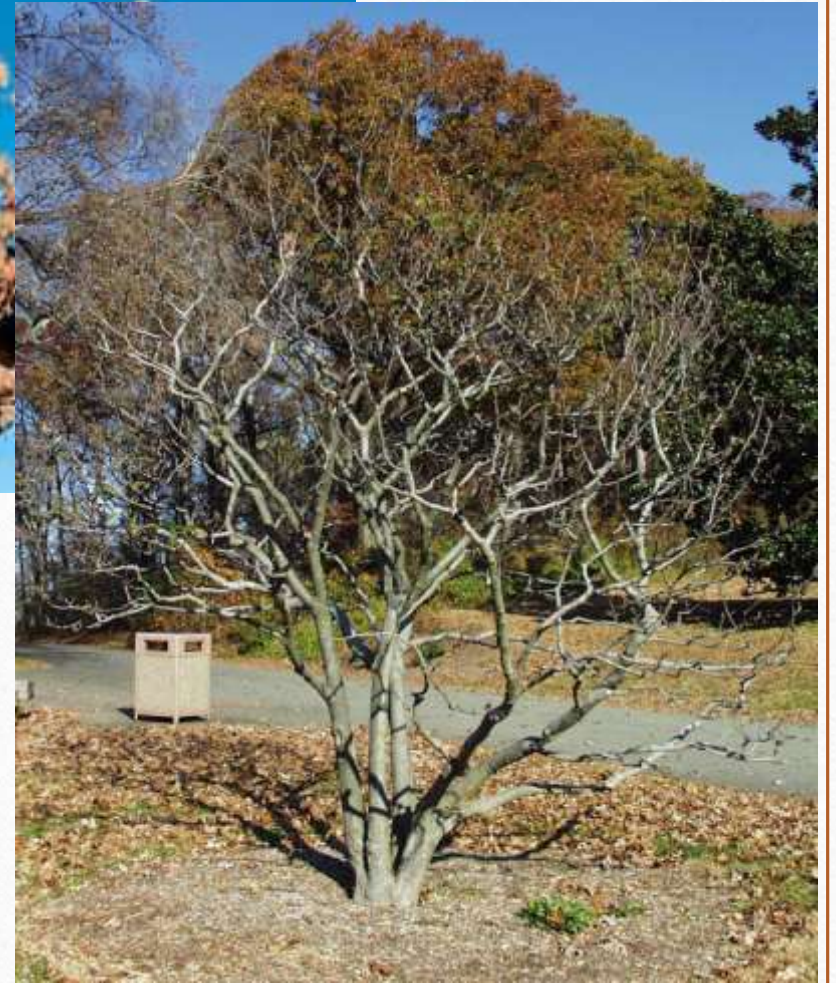
- Early flowering, tulip-shaped opening to waterlily-like, outside of petals darker, fade as they bloom..



Saucer Magnolia

Problems:

- Late spring frosts can kill buds or blossoms. Large, soggy, mushy brown after flowering until they fall off. Then messy until they disintegrate.
- Tree usually hardy except in extreme winters.



Star Magnolia

(*Magnolia stellata*)

Leaves: Smaller tree, leaves coarse but stems less so.

Bark: Silver-gray.

Flowers: fuzzy buds present all winter, opening earlier than Saucer so less likely to get damaged by late frosts; white tinged with pink; 12-18 narrow petals per flower make the “star”.





Star Magnolia

Problems:

- Few except spring frost damage to flowers.



Downy Serviceberry

(*Amelanchier arborea*)

Habit: small, usually multi-stemmed, upright, shrubby tree.

Flowers: one of the first to flower, before leafing out; dainty white simple in clusters.

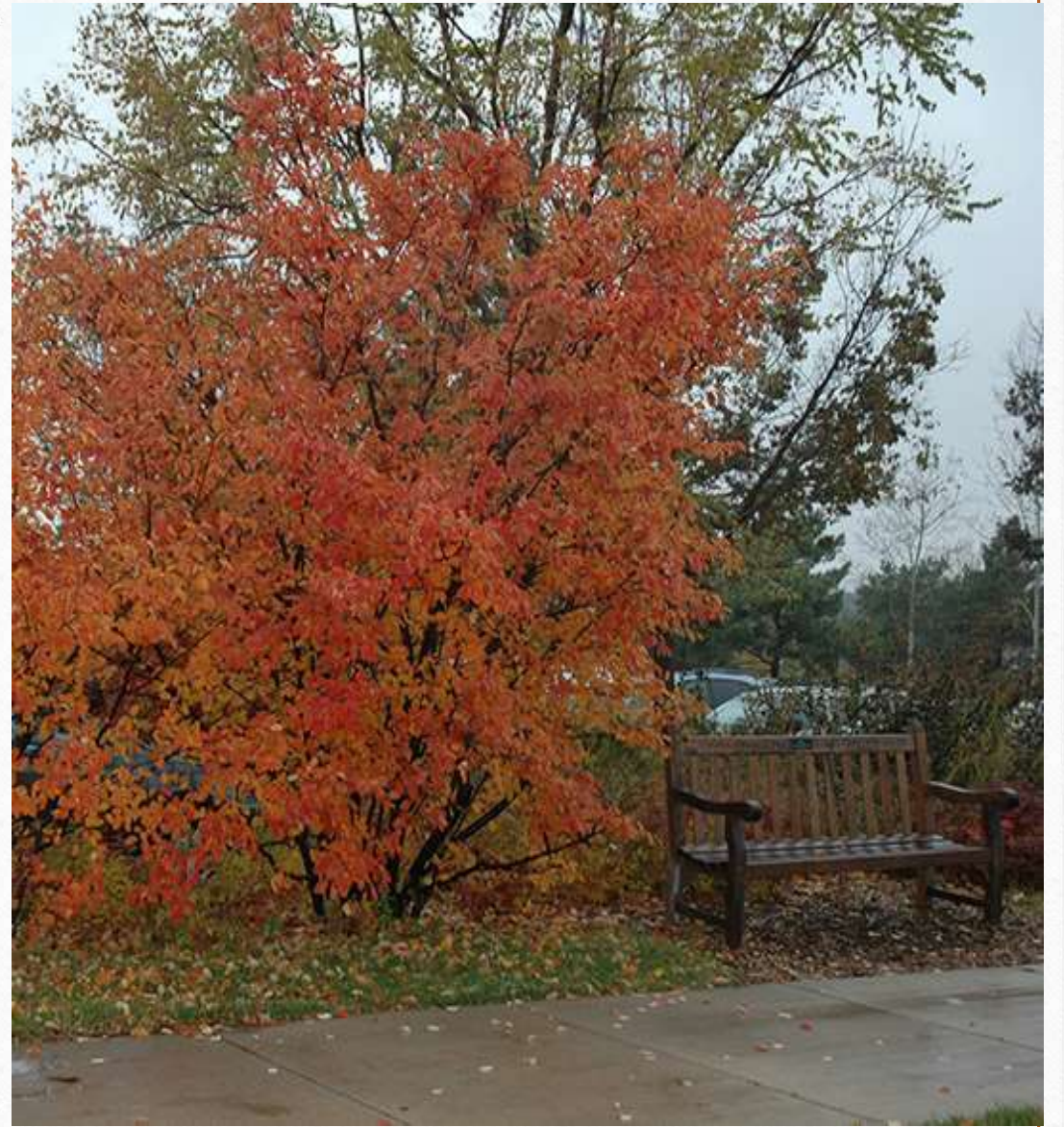
Leaves: open bronze maturing to dull, green, elliptical.

Fruit: early, clusters of small red turning purple berries, reportedly delicious; birds flock to them. Not messy however.

Fall Color: combination of red, orange, yellow – beautiful.

Prefers acid, loamy soil but adaptable; understory in forests.





Downy Serviceberry

Problems: Few.

Pests:

- Birds
- Rust



Pagoda Dogwood

(*Cornus alternifolia*)

Leaves: the only alternate leaved dogwood; rounded with deep veins parallel to the margins. Tinged red early then maroon fall color.

Flowers: early summer, creamy white in flat-topped clusters.

Fruit: clusters of very small purple blue berries; very ornamental

Habit: form random, flattened tiers from bottom to top; lowest layer quite wide (15' – 20'). Like a pagoda.



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College of Agricultural Sciences

Pagoda dogwood

Problems:

- Prefer damp, edge of woods sites. Also thrive in full sun with moist soil.

Pests:

- Golden canker (fungus) spreads through stems; terminal.



Common Large Evergreens

- Spruce – Blue Colorado, Norway
- Arborvitae (White Cedar)
- Pines – Austrian, Scot's, White, Red
- Redcedar

Blue Colorado Spruce

(Picea pungens 'Glauca')

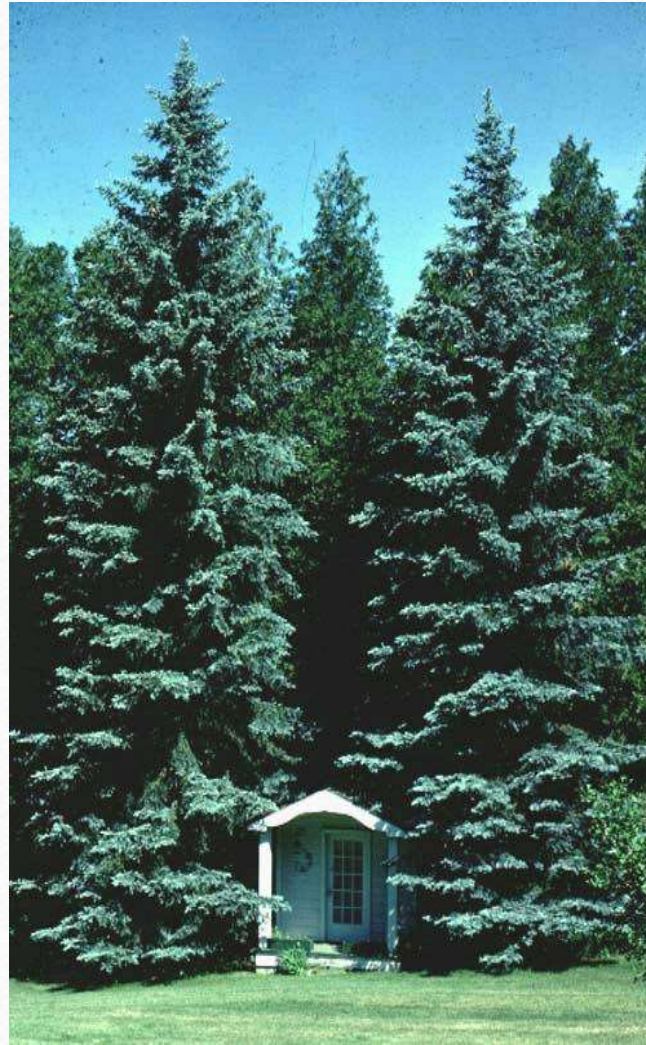
Needles: sharp, single held on small, woody pegs, surrounding the stems.

Cones: 2-4", pendant and drop intact.

Habit: pyramidal.

Culture: prefer moist, not hot dry conditions.

Cultivar 'Glauca' has blue new growth on all stems.



Blue Colorado Spruce

Blue Colorado Spruce

Problems:

- Too large for urban and most suburban properties, planted in wrong locations and overgrows space.
- Midwestern summers are hot and dry, should be well mulched over the rootzone and watered regularly even when mature.

Pests:

- Cytospora canker (fungus)!!!
- Rhizosphaera (fungus)!!
- Spruce gall adelgids and cooley spruce galls.
- Spider mites during dry spells.



Norway Spruce

(Picea abies)

Needles: dark green, sharp but not as stiff.

Branches: pendulous with pendulous side branches.

Cones: 4-6", scales wavy.

Habit: large, pyramidal but less formal. Long drooping branches and branchlets give it a graceful appearance.



Norway Spruce

Problems:

- Large, requires a lot of space.
- A little more tolerant of hot, dry conditions.

Pests:

- None serious. Not usually affected by *Cytospora*, *Rhizosphaera* or insects.



Arborvitae or White Cedar

(Thuja occidentalis)

Means Tree of Life!

Leaves: scale-like needles, dark green, thick and waxy.

Stems: flat vertical sprays of needles.

Habit: pyramidal but many different cultivars with many shapes.

Culture: very adaptable to soil pH, moisture and light conditions. Suffers in hot, dry periods until well established.



‘Pyramidalis’



‘Woodwardii’



Arborvitae

Problems:

- Winterburn in sunny, windy sites.
- Winter dieback of some branches.
- Heavy snow loads breaks and kills branches.

Pests:

- Deer love them!
- Needle miner (minor)



Redcedar

(*Juniperus virginiana*)

Needles: overlapping scales, slightly prickery, blue-green summer, purplish brown winter, cedar odor when crushed.

Bark: silvery gray, peels off in long, reddish strips.

Habit: Sp. is large, pyramidal but many cultivars of different sizes and shapes.

Culture: Adaptable, tolerates poor, dry sites, full sun.



Foliage darkens
in winter



Redcedar

Problems:

- None serious.

Pests:

- Cedar apple/hawthorn rust. Telial galls on Redcedar ooze orange slime in spring. Otherwise little effect.



Austrian Pine

(Pinus nigra)

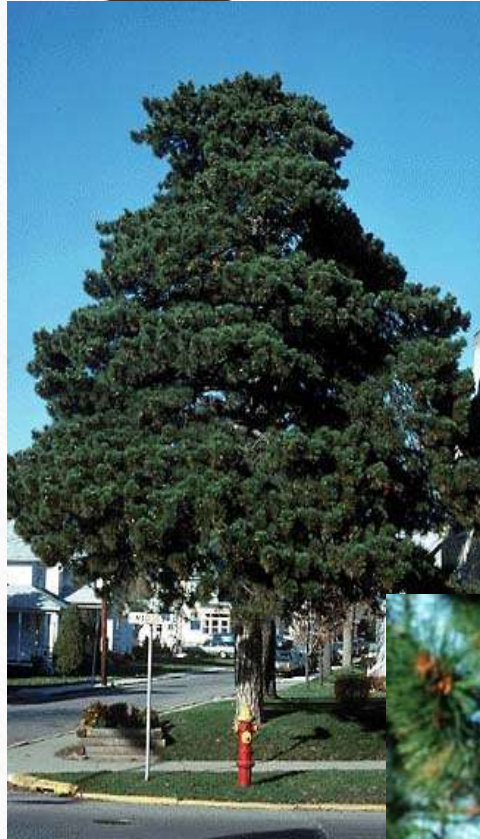
Needles: in bundles of 2, 4-6” long, stiff, sharp, snap when bent.

Stems: large, silvery terminal buds.

Cones: single or clustered, 2-3”.

Habit: broad oval when young, flat-topped and loses lower limbs with age.

Culture: tolerates very alkaline soil, prefers moist and loamy.



Austrian Pine



Austrian Pine

Problems:

- Sensitive to dry conditions.

Pests:

- Very susceptible to *Diplodia* (fungus).
- Zimmerman pine moth
- Pine needle scale



Austrian with Diplodia





Pine Needle Scale

Pine Sawfly



Scots Pine (*Pinus sylvestris*)

Needles: in bundles of 2, 1-3" long, twisted.

Bark: flaking exposing cinnamon-orange inner bark.

Cones: single or 2-3 together, 1-3" long.

Habit: loses many lower branches while others become large as trunks, slightly contorted, picturesque.

Culture: adaptable, more tolerant of hot, dry conditions.



Scots Pine

Problems and Pests:

- None serious. Same as others but less susceptible.



Red Pine

(*Pinus resinosa*)

Needles: in bundles of 2, 4-6" long, slender, snap when bent, blunt.

Flowers: male red and on lower part of tree, females at the top.

Cones: single or paired, held horizontally, 2".

Habit: loses lower limbs with age.

Culture: tolerates dry, acid, sandy, gravelly soil but not windy or salty.



Red Pine



Red Pine

Problems and pests:

- None serious but slightly susceptible to *Diplodia* fungus, Zimmerman pine moth & Sawyer beetle.



White Pine

(Pinus strobus)

Needles: needles in bundles of 5; 2-5" long, soft and pliable, light green, gives it a soft texture.

Buds: resinous.

Flowers: male yellow in large numbers, female pink.

Cones: hang downward, 3-7" long, curved, brown, resinous.

Habit: Broad oval when young, loses lower limbs with age.



Seasonal needle drop

White Pine

Problems:

- Intolerant of alkaline soil.
Needles become quite yellow.

Pests:

- Same as other pines but none serious.



Common Large Deciduous Shrubs

- Lilac
- Spireas
- Forsythias
- Burningbush
- Barberry
- Dogwood – red-twig; yellow twig; variegated
- Flowering almond
- Black chokeberry
- Sand cherry
- Privet
- Contoneaster
- Honeysuckle
- Cranberrybush viburnum
- Ninebark
- Potentilla
- Hydrangea
- Roses

Lilacs

(*Syringa spp.*)

Flowers: 4"-8" long panicles of small purple flowers at branch tips. VERY fragrant.

Leaves: rounded coming to a point, folded in the center, thick, dark green with undulating margins.

Common Lilac – (*Syringa vulgaris*)

- Large shrubs to 12' plus becoming leggy and contorted. Over 400 cvs. & 900 clones.



Lilacs

(*Syringa spp.*)

‘Miss Kim’ Manchurian – *S. patula* ‘Miss Kim’

- 5-6’ tall by 8-10’ wide; leaves larger, elongated.
- Smaller, paler flowers paired at tips; in June.

‘Palibin’ Dwarf Korean – *S. meyeri* ‘Palibin’

- Slightly smaller than ‘Miss Kim’; leaves more oval and much smaller.
- Flowers pinkish-purple, smaller but cover entire plant.



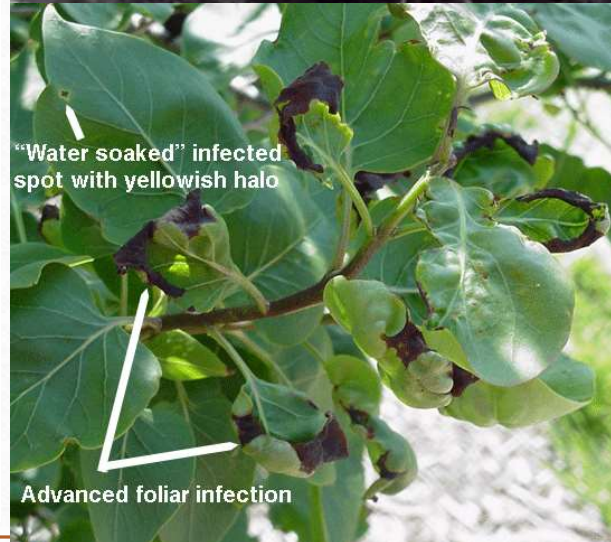
Lilacs

Problems:

- Common lilac should be renewal pruned annually to keep new shoots coming; becomes leggy with only a few, twisted, large trunks with flowers.
- Lilacs may not flower if in too much shade, over fertilized or pruned in early spring.

Pests:

- Common lilac:
 - Powdery mildew
 - Bacterial wilt
 - Lilac scale.
- Other species not susceptible to powdery mildew or bacterial wilt.



Bridalwreath Spirea

(Spiraea x vanhouttei)

Multi-stemmed suckering shrub 4-6' tall , with finely-branched, arching stems 6'-8' wide.

- Flowers: round, flat-topped clusters of tiny, creamy white flowers in mid-late May after the leaves have expanded.
- Leaves: small, bluish green, simple with irregular indentations along the margins.
- Fall color: usually unremarkable but some years subtle shades of red, orange, and purple.



Bridalwreath Spirea

Problems:

- Improperly pruned: Planted too close or in too small a space. Sheared into balls after flowers have formed so only the stems that weren't cut have flowers. Beautiful arching habit is lost.

Pests:

- None.



Bumald Spirea

(*Spiraea x bumaldii*)

Multi-stemmed suckering shrub, 3-4' tall and wide. VERY common.

- Flowers: range of shades of pink in June. Reflower if first flush removed once they are dead. Dried flowers provide winter interest. Prune late winter.
- Leaves: long, narrow, many varieties with green, bronze, red, purple, yellow. New growth is brighter and fades later. Fall color can be good or blah depending on the variety.
- Many cultivars available with flower color and leaf color differences.



Bumald Spirea

Problems:

- “Sports” emerge that are totally white or half and half colors. Can have several at a time.
- Can be pruned to the ground to rejuvenate every few years depending on vigor.

Pests:

- None serious.



Forsythia

(*Forsythia × intermedia*)

Medium to large shrubs grown for early spring flowers in various shades of yellow.

Flowers: before leaves in April. Leaves and flowers opposite in tannish yellow-green stems.

Fall color: burgundy in good years

Habit: Irregular, mounding with long errant branches arising giving an uncontrolled appearance.

Culture: full sun; renewal prune annually.

.Flowerbud hardy cvs.:

‘Northern Gold’ is upright 6-8’.

‘Meadowlark’ is large 8-10’; maroon in fall.

‘Sunrise’ is mounded and 4-6’; maroon in fall.

‘Bronx’ is a dwarf that doesn’t flower.



Forsythia

Problems:

- Sheared to fit space and more controlled appearance.
- Spp. not flowerbud hardy so no flowering above snowline in harsh winters.

Pests: None.



Dwarf Burningbush

(*Euonymus alatus* 'Compactus')

Or Winged Euonymus, due to long corky ridges on stems. Ridges are smaller on the dwarf than the straight species.

Grows 4-5' tall and 3-4' wide. Stems grow very upright on dwarf cv. The species branches very horizontal.

Leaves: small, elliptical, bluish green in summer, turning flaming red in fall. Brighter in full sun. The species has watermelon pink fall color even in the shade.



Dwarf Burningbush

Problems:

- Dwarf cv. not on WI NR40 Invasive Species List. Species and 'Nordine' are restricted.
- Improperly pruned. Sheared into balls to maintain small stature.
- Winter dieback in severe winters.
- Rabbits love to chew the bark and lower stems.

Pests:

- None serious.
- Not attractive to the Euonymus caterpillar that attacks the Spindletree E.



Barberry

(*Berberis spp.*)

Shrubs of varying sizes all with many small thorns on all stems. Very urban tolerant. Used for the red or purple foliage. Some variegated red and pink.

Japanese Barberry (*Berberis thunbergii*)

- Red Barberry (*B. t. var. atropurpurea*)
Restricted on the WI NR40 Invasive Species List 2015 along with many cultivars.
- ‘Crimson Pygmy’ is a purple dwarf favored for small size being only 2-3’ by the same. Not restricted on the WI NR40 Invasive Species List.



‘Crimson Pygmy’

Barberry

Problems:

- Invasive status
- Red barberry when used for hedges is too tall (5' x 5') so sheared to maintain height desired.
- Thorny stems make it a good barrier hedge but make pruning difficult.
- Catches any trash blowing in the wind.

Pests:

- None serious except *Verticillium* wilt susceptible



Red-twig Dogwood

(*Cornus sericea*)

Native shrub growing 4-6' tall and wide.

Leaves: green with indented veins parallel to the margins. 'Variegata' and others have cream and light green foliage throughout the summer, strongest in full sun but white areas may burn.

Stems: slender, upright with few branches except at tips of tall stems. Green in summer, bright red in winter (in full sun).

'Flaviramea' stems are yellow in winter but less showy.

Flowers: after leafing out, in June, flat-topped clusters 2-4" across of cream-colored small flowers.

Fruit: clusters of many, small bluish berries held upright and highly favored by insects and birds.

Prefers moist soil especially in full sun. Tolerates partial sun.



Red-twig Dogwood

Problems:

- Must be renewed pruned every couple years to keep new root suckers forming that have red bark. Mature stems have gray bark.
- Severe winters can predispose them to cankers and dieback.

Pests:

- Septoria leaf spot.
- Anthracnose in rainy years.



Black Chokeberry

(*Aronia melanocarpa* var. *elata*)

Medium, multi-stemmed, suckering shrub 8' tall and becoming wider due to stems that root and root suckers. This variety is the dwarf.

Flowers: early spring as leaves are opening, clusters of 5-8, simple flowers (like apple blossoms).

Leaves: very shiny green, elliptical and simple.

Fall color: usually nice and can be red or a mixture of red, orange and purple.

Fruit: dangling clusters of small, round, black berries that persist through winter. Must freeze and thaw several times before birds will eat.



Black Chokeberry

Problems:

- None.

Pests:

- None.

Bonus: Fruits are edible and one of the highest in antioxidants. Too bitter to eat raw so made into jams, jellies, syrup and baked goods.



Purple-leaf Sand Cherry

(Prunus x cistena)

Medium, rounded shrub growing 5-6' x 5-6'.

Leaves: deep, purplish-red, small, simple.

Flowers: Pink, simple cherry blossoms with the leaves in May.

Problems and Pests: All the same as other cherries therefore very short-lived.



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Cotoneaster

(*Cotoneaster spp.*)

Leaves: small, rounded or elliptical, shiny on upper surface with beige hair below and on stems.

Fall color: various shades of red, orange and yellow mixed.

Flowers: Small, light pink, held tightly to the stems after the leaves in June.

Habit: Spreading (*C. divaricatus*) and Hedge (*C. acutifolius* or *lucidus*) are medium shrubs often used for hedges.

Rockspray (*C. horizontalis*) is a low trailing plant mounded slightly in the center used on banks and along walls also as groundcovers. Red berries in late summer.

Culture: Very adaptable and tolerates alkaline soil which is well-drained, de-icing salt tolerant, in sun or light shade. Will not tolerate wet soil.



Creeping Cotoneaster

Cotoneaster spp.

Problems:

- Heavy clay soil that stays wet kills them.
-

- Planted so that size control through pruning is required.

Pests:

- None serious.



Cranberrybush Viburnum

(*Viburnum spp.*)

V. triloba is native to the eastern part of the U.S. and Canada. Also called Highbush Cranberry.

V. opulus is the European C.V. 'Nana' is a dwarf cultivar that rarely flowers and fruits.

Leaves: Maple-shaped and lobed, opposite on the stem, 2-4" wide and long.

Fall Color: can be a spectacular yellow tinged with red or maroon.

Flowers: After leafing out in late May, flat-topped clusters 3-4" around, cream-white, with small fertile flowers in the center surrounded by a ring of showy, sterile flowers resembling hydrangeas.

Fruit: dangling clusters of translucent red berries that persist into winter and are not taken by birds until they have frozen and thawed a couple times.



American Cranberrybush V.
(Highbush Cranberry)

Cranberrybush Viburnum

Problems:

- Not planted to allow for the mature size and therefore sheared to maintain smaller size. Difficult to prune without shearing but no flowers or fruit if sheared.

Pests:

- Viburnum crown and shoot borer are so common now that all plants ultimately succumb.
- Viburnum leaf beetle can kill as the larvae feed inside the stems.



Common Ninebark

(Physocarpus opulifolius)

Size: Averages 5-6' by the same. Some cultivars are dwarfs or just slightly smaller.

Flowers: after leafing out in June, flat-topped clusters of cream-colored flowers. Dark foliaged cultivars may bloom white or pink.

Leaves: almost maple-shaped with deeper veins. The species has light green foliage. A cultivar "Gold's Dart" has bright yellow. 'Diabolo' was the first of the dark reddish-purple cultivars. Many available currently.

Fruit: large numbers of clusters of winged capsules containing seeds are somewhat showy.

Fall Color: The species is poor yellowish. Some of the dark leaved ones have nice orangish-maroon.

Culture: Full sun or shade but with good air circulation around the leaves.



Common Ninebark

Problems:

- Arching stems can be irregularly shaped especially if pruned. Renewal prune only.

Pests:

- Powdery mildew is severe on the species deforming leaves and especially the new growth as to prevent fruit production and cause dieback.
- Newer cultivars apparently much less susceptible.



Bush Cinquefoil

(*Potentilla fruticosa*)

Also called just potentilla. Small shrub grows to 3' x 3'. Prune by rejuvenation every 3 years will keep it smaller and denser.

Leaves: ~~small, many-lobed bluish-green~~ leaves giving it a fine texture.

Flowers: after leafing out from June to frost. Small, single, simple flowers in yellow mainly, also orange, red and white.

Fruit: small, woody capsule, insignificant.

Fall color: none.

Culture: required full sun. Tolerates very dry conditions.



Gold Drop



Red Sunset

Potentilla

Problems:

- None serious.
 - Can be considered scruffy-looking.
-

Pests:

- None serious



Hydangeas

(*Hydrangea spp.*)

H. spp. that are flowerbud hardy in Wisconsin:

Smooth (*H. arborescens*): 3-4' stems flowering on new wood, large heart-shaped leaves, large snowball-type white flowers of white, mostly sterile flowers, dry brown. 'Annabelle' an old reliable cv.



'Annabelle' Smooth H.

Hydrangeas

(*Hydrangea spp.*)

H. spp. that are flowerbud hardy in Wisconsin:

Panicked (*H. paniculata*) large shrub or tree as a small tree, flowers on 1 yr. old wood, in pyramidal open, mostly sterile clusters with white blushed with pink turning deep rose before drying brown for winter. 'Grandiflora' called PeeGee H.



'Tardiva' Panicle Hydrangea



PeeGee Hydrangea

Hydangeas

(*Hydrangea spp.*)

H. spp. that are flowerbud hardy in Wisconsin:

Reblooming (*H. macrophylla cvs.*) the florist's H. usually not flowerbud hardy in Wisconsin. 'Endless Summer' first cv. Blooming on old and new wood. Flowers pink in alkaline and blue in acid soil. Growing to 4'x4', round shrub that may die to the ground in winter.



Endless Summer Hydrangea



Endless Summer
'Blushing Bride'

Hydrangeas

Problems: Pruning properly.

- Smooth H. prune all stems to the ground in spring;
- Panicked H. only cut out old flowers every year in spring;

- Reblooming H. only prune stems that died back over winter.
- Smooth H. spreads by roots taking up more space all the time.
- Reblooming flowers will be blue or pink. To make them blue use aluminum sulfate, once a month, June through August. May take a few years.

Pests: None serious.



Hardy Landscape Shrub Roses

(*Rosa spp.*)

Hardy, disease resistant, landscape-scale shrubs are low-maintenance and reblooming all season long. First notable cv. 'Knock-out' has cherry-red flowers; bred by Greenfield resident Will Radler won top honors in 2000. Is still the most planted rose in history!

'The Fairy' – floribunda type covered with clusters of small, pale pink flowers.

'Carefree Delight' & 'Carefree Wonder' - pink

'Bonica'- pale pink.

'Frau Dagmar Haastrup' – white, rugosa.

'Therese Bugnet' – pink, fragrant.

Meidland series – many colors and habits

Flower carpet roses – many colors.

'Knock-Out'



'Therese Bugnet'



'Carefree Wonder'



'Hansa'

Hardy Landscape Shrub

Roses

Unlike the hybrid roses, the Grandifloras, Hybrid Teas, Floribundas, and Polyantha these need no winter protection and have few disease problems such as black spot or powdery mildew. Rust may still occur.

Insects: Japanese beetles, rose slug sawfly, leafcutter bee (don't take much).



Double KO



Pink Double KO



Carefree Sunshine



Rainbow KO



Blushing KO

Evergreen Shrubs & Groundcovers

- Needle Evergreens

- Junipers – shrub & groundcovers
- Yews
- Arborvitae
- Mugo pine
- Dwarf Alberta Spruce

- Broadleaf Evergreens

- Euonymus vine and groundcover
- Boxwoods
- Rhododendrons and Azaleas

Yews

(*Taxus x media*)

Leaves: short, flat, soft needles, black-green above, yellow-green below, either surrounding stems or in two flat rows.

Fruit: red 'arils' with one seed inside.
Poisonous if eaten. Only on females.

Culture: full shade to full sun; intolerant of wet soil. Responds well to heavy pruning.

Habit: vary by species and cv.; upright, spreading, pyramidal; most very tall 10-15' or more. Some spread 20'. Dwarfs also.





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Yews

Problems:

- Mature size not accommodated so are sheared heavily into many formal and inexplicable shapes.
- Winterburn from sun and wind if in exposed site.

Pests:

- None serious.



Yews



Junipers

(*Juniperus spp.*)

Leaves: interlocking awl-shaped and scale-shaped sections making them prickery. Some change in winter to pale purple or grey.

Fruit: bluish berries covered with a grey “bloom”.

Culture: full sun required; tolerate hot, dry, poor soil; intolerant of wet, heavy soil.

Evergreen shrubs from two main spp. ranging from large to small and many low groundcovers.

(*J. chinensis* and *J. horizontalis*.)

Shrubs: *J. c.* ‘Pfitzeriana’ is 6’ x 20’; ‘Mint Julep’ 4’ x 6’.

Groundcovers: *J. h.* ‘Andorra’ is 2’ x 6’; Blue Rug and ‘Blue Chip’ 4-6” x 6’. Foliage purplish in winter.



‘Blue Chip’



Junipers

Problems:

- The large spread is seldom accommodated and then need pruning to maintain much smaller size cutting into “dead zone” where no new growth occurs.
- Planted under trees that shade them out over time.
- Heavy clay soil is too wet

Pests:

- *Phomopsis* tip blight fungus
- Rodent feeding on branches under snow in winter.



Mugho Pine

(Pinus mugho var. mugho)

Needles in bundles of 2; short and stiff.

Habit: a dwarf cv. relative to the non-dwarf species but growing 8' wide by 15' tall in time.



Mugho Pine

Problems: mature size not accommodated when planted. New growth should be pinched each spring to maintain smaller size.

Pests: as with all pines

- *Diplodia* tip blight
- Pine needle scale
- Pine sawfly



Dwarf Alberta Spruce

(Picea glauca 'Conica')

Dwarf in all senses; very short needles and internodes make it dense with a fine-texture.

Habit: extremely pyramidal; very formal.

Size: Mature size: 8-10' tall x same in width at base. Very slow growing.



Dwarf Alberta Spruce

Problems:

- Winterburn especially on exposed side. Can kill those branches. Should be protected in winter. Sensitive to salt spray.
- Reversion – cut out when small.

Pests:

- Spider mites in hot, dry weather.



Spider Mite damage



Spider Mites





Euonymus

(*Euonymus fortunei*)

Small, shiny leaves that are often variegated.

Groundcover that can crawl upward several feet on trees and buildings.

Shrub forms can also creep with long stems.

Wintercreeper - E. f. 'Colorata' turns reddish-bronze in winter.



Euonymus

Problems:

- Winterburn in sites exposed to sun and wind.

Pests:

- Euonymus scale is almost universal without annual treatment which needs to be perfectly timed or done in winter.



Boxwoods

(*Buxus spp.*)

Leaves: small, round with margins curved under, glossy, bright to dark green above, yellow undersides, thick and leathery, strong ammonia smell. Discolors in winter.

Several spp. and cvs. with a range of sizes, shapes and winter hardiness.

Used since ancient times for formal gardens because can be sheared to almost any shape and size.

Culture: prefers cool, moist soil in full sun to partial shade. Shallow, fibrous root system so mulch and avoid working around roots.



Boxwoods

Problems:

- Cvs. of *B. microphylla* var. *koreana* and *B. sempervirens* have been trialed by Chicagoland Grows and selected for winter hardiness.
- Winterburn can actually kill some branches.

Pests:

- Fungal diseases when pruned to be very dense.
- Boxwood blight (fungus)



Rhododendrons

Azaleas are deciduous rhododendrons with funnel-shaped flowers having 5 stamens instead of being evergreen with bell-shaped flowers having 10 or more stamens.

Generally not hardy in Zone 5 or lower except:

- P.J.M Rhododendron
- Northern Lights Azaleas
- A few others

Require acid soil and organic, loamy, well-drained conditions.

In Northern climates, plant in protected locations out of the wind and sun in the winter



Rhododendrons & Azaleas

Problems:

- Winter hardiness
- Acid-loving
- Need loamy, well-drained soil

Pests: None.



'Gibraltar' Azalea
Exbury Hybrid

Northern Lights Series



Northern Lights
White Lights



Rosy Lights
Golden Lights



Trash Trees

White Mulberry

(*Morus alba*)

Restricted on WI NR 40 List (except males)



Siberian Elm

(*Ulmus pumila*)

~~Restricted on WI NR 40 List~~
except cultivars



Tree of Heaven

(*Ailanthus altissima*)

Restricted on WI NR 40 List



Boxelder (*Acer nigundo*)



Black Walnut

(*Juglans nigra*)



Buckthorn

(*Rhamnus spp.*)

Restricted on WI NR 40

List



European Buckthorn, *Rhamnus cathartica* leaves and m

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There are better choices!!

Find out what they are.