## LANDSCAPE DESIGNS NURSERY

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## Cornus for Southern Wisconsin Gardens

Cornus is from the Latin word, cornus – meaning "of the horn". They may have begun their evolution about 100 million years ago. Cornaceae is a family of 2 genera, Cornus and Alangium (Alangium is not always included in the Cornaceae). The genus Cornus contains about 30-65 species – depending upon who is doing the taxonomy.

Foliage and form: Many species are deciduous trees maturing in the 20-40'+ range and thicket rhizomatous shrubs maturing in the 1-15' high and wide range. The foliage is usually simple ovate with entire – smooth margins. Nearly all have some form of hairs on the under-sides of the leaves but the tops may be glossy to hairy, in various shades of green with leaves varying in size from less than an inch to over 4 in length and width. Most leaves are opposite but some species are alternatively arranged. One of the interesting things about *Cornus*' foliage, -- if you gently break one of the leaf's major veins in two, the latex-like substance in the veins will form strands as the 2 leaf sections are pulled apart. Woody stems range from thin and wiry to very heavy dense wood that has economic importance. On the shrubby types, the stems live in the 5 - 10-year range. While the tree forms are long lived in the 40–60+ year range. On the



shrubby forms, rejuvenate or renewal pruning is recommended. However, they are tolerant of abusive pruning. Autumn foliage colors range from poor yellows to excellent pinks to deep-red-purples, from light lemon-yellows to peachy-salmons to deep oranges and nearly every shade in between and often on the same plant.

**Soil:** *Cornus* enjoys well drained soils to moderate clay soils with some even tolerating very moist to flooding conditions, particularly in the spring. Coarse loamy sand to medium loams, are preferred, avoiding only very heavy non-draining wet clays.

**Lighting**: While some are very shade tolerant, they range in their tolerance to full hot sun.

**Mulching**: is not required, except for maybe *Cornus canadensis*, and then only with pine straw.



**Flowers**: perfect monecious (expect in the African species which are dioecious), often range from ½" to ½" in diameter born in compound some-what rounded clusters of 8 to 50, in many different configurations with mostly 4 petals in creamy white to yellow green. Most flower in the spring with *Cornus kousa* flowering in June and a bit into July. All *Cornus* flowers are born on ends of branches or spurs from the previous year's growth. Most are self-sterile.

Large, typically white, bracts are found on some species, often hiding or over-whelming the true flowers.

*Cornus* flowers range from very fragrant to minimal at best. *Cornus* flowers are beloved by pollinators and others opportunistic animals.

**Fruit:** are drupes, or nearly so, berries that range in various shades of white, yellow, red, to bluish-black. The fruits and seeds are beloved by some 100 kinds of birds and other animals. Leaves, twigs, and younger bark is loved by many forms of wildlife including: moths, rodents, rabbits and deer. Fruits from a number of species including *C. kousa, C. mas* and *C. officinalis*, are edible when ripe -- slightly mushy. They are high in vitamin C.

**Winter**: Little if any protection is required. I recommend for the first season, especially in winter, to be protected from vermin.

**Fertilization**: They all respond to good quality slow-release fertilizers. Best fertilized in mid-autumn.

**Planting**: Nearly any time the soil is workable in the Spring to early November. Some of the following species must have acidic soils and are noted below.

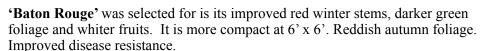
**Propagation**: Division, cuttings and seed\*. Cultivars will typically only come true from division or cuttings, and are best grafted. Division best is March as soon as the earth thaws. (\* Seed grown plants are typically not true to their parents.)

**Pest and diseases**: Canker is probably the largest killer of Dogwoods. Removing the canker infected stems is the only way of controlling it. Dogwood Anthracnose is another terrible disease that suddenly appeared in the USA in the 1970s' It is unknown in other parts of the world. It primarily and fatally afflicts *C. florida* and *C. nuttallii*, and as a bit of a non-lethal foliar disease on *C. kousa*. Other diseases include Spot Anthracnose, *Septoria* Leaf Spot, and Powdery mildew. While these can be disfiguring, they are typically not fatal like Canker and Dogwood Anthracnose.

Dogwood borer afflicts *C. florida* and treatment are best when the trees are in flower.

**Hardiness**: All of the following taxa are hardy in Zone 4b - 5a, with some ever hardy to Zone 2.

Cornus alba – Tartarian Dogwood is native to Siberia to Manchuria and N. Korea. Its simple ovate to elliptic leaves are typically 2-4½" long x 1-2 or so inches wide. Winter stems are commonly a beautiful deep red. Growing about 8-12' high and wide with arching stems that root at their tips. This allows for massive colonies to form if not regularly removed. Removal of the oldest canes – iterations, ensure a continues production of brightly colored, younger stems for winter interest. Soft yellowish-green spring foliage matures to a lustrous dark green. Autumn coloration is highly variable and the following cultivars are often selected for this. Yellow-white spring-blooming flowers in 1½-2" diameter, flat-topped racemes are followed by non-persistent 3/8" whitish berries. Great for pollinators and other insects and birds and other creatures love the berries. Culture is extremely easy in full sun to light shade in neutral to acidic moist soils. It is plagued by numerous diseases and pests. Zone 3a to 8a. There are numerous cultivars that vary in their tolerance to these diseases and pests so only a few are mentioned below.



**'Brushed Burgundy' (Chovzam)** has emerging new leaves blushed red to burgundy and maturing to creamy yellow margined green leaves. Red winter stems.

'Chief Bloodgood' (Crmizam) is a fast growing, upright, vigorous bush maturing in the 6 ft. high and wide with brilliant coral-red winter stems.

**'Cream Cracker'** has yellow leaves with creamy margins maturing to white margins on gray-green centers. Purple-red winter stems. Fewer foliar diseases than other variegated cultivars.

'Garden Glow' is similar to the species but has soft yellow mature foliage.

**'Ivory Halo'** is a compact variegated ivory borders with green centered leaf form maturing in the 6 ft. high and wide range. Red winter stems. Less prone to foliar diseases than other variegated forms.

**'Kesselringii'** is similar to the species but has near black stems. Beautiful, but highly prone to stem canker.



**'Neon Burst'** is a compact, finer textured shrub maturing in the 5-6' high and wide range. Chartreuse foliage is burn resistant and changes to a burst of purple, red, tallow and orange in the autumn. Glossy scarlet red winter stems.

**'Red Gnome'** is a very compact form maturing in the 3-4' range and a bit wider at 4-5'. Its tight branching is much finer as is the foliage along with much fewer and smaller flowers. I have not noticed berries on them. The autumn foliage is rich burgundy with bright red stems. It is susceptible to leaf spot and basal canker. **'Strawberry Daiquiri' (Stdazam)** is similar to 'Baton Rouge' except the foliage is consistently and evenly variegated green and creamy-white. It may revert to solid green but just prune these away. Improved disease resistance. Reddish autumn color in the green portions of the foliage with pinkish in the creamy areas. Strawberry-red stems in winter.



Cornus alternifolia – Pagoda Dogwood, Alternateleaf Dogwood, is native to deciduous forest and forest perimeters of the eastern southern half of North America. It is an arborescent shrub and not a true tree. Each stem or iteration lives about 10-15 years. If its basal shoots (suckers) are regularly removed, the plant will lose its ability to survive and ultimately die. If one or more of these are allowed to replace the oldest stems, the plant will thrive for numerous years. Maturing at about 20-25' high and wide, its horizontal branching with ascending tips provides for its Pagoda namesake. Pagoda Dogwood is characterized by sympodial growth where the new shoot/stem grows from a lateral – side shoot, rather than a terminal bud. This growth pattern also lends to its namesake growth appearance. Its new bark varies from glossy green to purplish-black maturing to a smooth to shallowly fissured gray color. Foliage often emerges with a reddish blush maturing to a deep lustrous green. Autumn colors are incredibly variable – simple soft yellow, to

striking peach, to rich yellow to intense red and deep burgundy wine. Sometime on the same tree! Flowers buds are a soft yellow opening to white and born in flat topped cymes. They are fairly strong smelling and sometimes overwhelmingly so. Green fruits mature to red and then bluish-black, ripening in July-August. Birds quickly devour them. The fruits are born on reddish stalks. Azure butterflies and the American snout butterfly feed on this dogwood. While tolerant of many soil types, it prefers cool, moist, slightly acidic soils. Zones 3 to 7a. Golden canker is a common problem in our area and should be cut out with a sterilized pruner. Destroy the infected branches. Leaf spot and powdery mildew may also be problematic, especially on trees that are under stress. Cultivars include:

'Argentea' has much smaller leaves that are cupped the length of leaf and marginally wavy. They emerge with a red blush with creamy white irregularly margins and feathered green centers. They lose the red blush as they mature. Very delicate in its pagoda-like branching and form. Enjoys shade and good moisture. Slow growth. Few white flowers and minimal fruits. Minor yellowish autumn color.

'Big Chocolate Chip' (Bichozam) is similar to the species except the stems are shiny chocolate colored, berries are navy-blue and the autumn foliage is glossy burgundy.

'French Vanilla' (Frevazam) is similar to the species except it has larger flower heads, berries are navy-blue and the autumn foliage is glossy orange.

'Gold Bullion' is smaller growing than the species, with golden-yellow foliage maturing to chartreuse green to green. Must have deciduous shade and adequate moisture to prevent foliar burn.

'Golden Shadows' Some years ago Walter Stackman of West Chicago, IL sent me some photos of a sport on his Pagoda Dogwood. My heart skipped a beat! We talk about how to get this into production. Years later, 'Golden Shadows' was released. Its new growth is blushed copper-red as its deep green leaves with wide irregular bordered chartreuse variegation matures like dancing butterflies at the tips of the stems. The chartreuse color is beautifully maintained during the growing season if not placed in excessive sunlight. If provided too much direct sun and often combined with insufficient water, the foliage may bleach out to white and burn. Autumn color is yellow. Flowers and fruits like the species. From larger specimens I have witnessed, I believe it is also more open growing than the species, providing a pleasant more airy, less congested, appearance.

'Moonlight' has irregular creamy-white margined foliage that emerges with a pink tinge. Pink to reddish autumn colors.

**Cornus amomum** – Silky Dogwood is a suckering shrub ideal for naturalizing in moist sites, partially shaded by deciduous trees, and for erosion control. It's native to from NY to GA west to TN & KY. It matures in the 8-12' range and much wider. Stems emerge purplish-green maturing to gray. Prune out the oldest stems about one every 3-5 years. Simple dark green leaves are 2-4" long and about 1-2" wide. Yellowish-white 1½-2" flat topped cymes are beloved by pollinators and other opportunistic feeders. ½" gray-blue to black drupes – berries are quickly devoured by numerous birds. Zones 4-8.

**'Cayenne'** matures in the 8' high and 10+ feet wide range. Fresh green seasonal foliage turns orange red in the autumn. Porcelain blue berries. Bright red winter stems. Japanese beetle and canker resistant.

Cornus canadensis – Bunchberry is native to Northern Wisconsin and much of the other northern parts of North America and the higher elevations of the Appalachians and New Mexico. It is also found in the Mountains of Hokkaido, Japan, Russia, N. Korea, and N. China. It is a mesophytic species requiring cool, consistently moist – aka bogs, humus rich yet well drained, acidic (as low as 4.0 pH) soils in cooler environments of Zones 2 – 4. There are a very few locations in southern Wisconsin in which they may be successfully grown. Growing about 8-10" high and spreading indefinitely, it's a wonderful site to see the tops of the vertical stems adorned with 4 to 6 creamy white ½-1" long bracts and shiny green foliage covering an expansive area in the Spring. The autumn is just as charming with clusters of bright scarlet-red drupes replacing the flowers of Spring. IF you have the conditions, they are worth growing.

'Downeaster' was selected in the full sun barrens of Eastern Maine. May be worth finding for growing in S. WI.

Cornus controversa – Giant Dogwood 'June Snow' has overwintered in containers at our McFarland nursery with winter temperatures in the -22°F. I find it to be hardier than most books note. This is in many regards a giant and close relative of *C. alternifolia*, maturing in the 30-40 ft. range. 3-7" diameter flat-headed cymes are composed of numerous white flowers beloved by numerous pollinators and other feeding opportunists. 1/4" green berries progress to a reddish, then purple and sometimes to a blue-black. Again, relished by birds and other fruit eating animals. Autumn coloration is variable from yellowish to stunning purple. Grower's provenance is important. Native to China and Japan. We have had the following successfully overwinter in Zone 4b-5a. 'June Snow' is a rounded layered branching form with horizontal branching with white flowers. 1/4" blue-black fruits. Dark green 3-6" long leaves turn a nice orange to red in the autumn. Maturing in the 30 ft. high by 40' wide.

'Variegata' has irregular creamy white border on smaller long, narrow foliage. A bit more open growing than the species.

Cornus drummondii (C asperifolia var. drummondii) – Roughleaf Dogwood is native to the open deciduous forests of eastern USA from S. Ontario to S. Dakota to TX and almost to the eastern coast of the USA. Growing into an attractive interesting shaped small tree, especially if the basal shoots are removed. Maturing at 15-20' high and 10-15' wide. 2-4" long hairy rough green leaves with softer hairs beneath, turn a nice yellow to a muted reddish purple in the autumn. Its non-fragrant flowers are yellowish-white in May to E. June in 1½-2½" diameter multi-flowered flat-topped cymes and beloved by pollinators and opportunists. The flowers are followed by ½" fruits, drupes, in a near porcelain-blue color. Birds and other animals quickly devour them. It's tolerant of most any well drained garden soil. Zone 4-8.

**'Lemon Drops'** is one of my favorite cultivars. Saffron-yellow heads of flowers produce clear yellow fruits with reddish stalks, on small trees with dark green foliage that turns a nice deep purplish-red in the autumn.

Cornus florida – Flowering Dogwood is considered one of the premier flowering dogwoods. It's native from MA to FL west to Ontario, MI, NB, OK, TX and into Mexico. Maturing in our area at 25 ft. and 15 to 20 ft. wide, flowering Dogwood is at home in nearly every residential property – with proper growing conditions. Each tree is noticeably distinct in its layered branches and irregularly growing trunk. If you are looking for the perfect straight trucked small tree, this is not going to fit you needs. If you desire a slower growing tree with unrivaled character, this is one of the best. Its medium-green leaves are 3 to 6 inches long about half as wide with spectacular autumn colors in the reds to purples - as long as quality health is maintained. Its yellow to green usually non-fragrant flowers are ½ to ½ in diameter and born in ¾ umbers in the centers of 4 fabulous bracts. The white bracts with noticeable clefts at their tips, form a spectacular 'flower' 3-5" in diameter in late April. Brilliant red, shiny drupes – fruits, are born in apical clusters of 1-10. They are non-palatable for humans, but a plethora (40+) kind of birds will voraciously dine on them and buds. The young stems are reddish maturing to gray in the second year and with age, a wonderful dark gray blocky pattern. When planting, as soon as the ground thaws until Late Sept., make sure to plant the root ball a bit proud – meaning, the top of the root ball is above soil grade, as it is very

sensitive to be planted too deeply. If pruning is required, always treat the wounds with copper naphthenate - a wood preservative. *Cornus florida* does not compartmentalize wounds very well. Flowering Dogwood prefers consistently moist well drained acidic soils in full sun to medium deciduous shade. Although listed as pollution intolerant, there are some wonderful specimens growing on the very near NE side of downtown Madison, WI. There are numerous cultivars (125+), but very few from its northern range. Provenance is extremely important. We have had good success with the following cultivars:

'Appalachian Snow' A selection from the U. of TN for its high resistance to powdery mildew. Otherwise, like the species

**'Cloud 9'** was introduced in 1961 and grows a bit slow er than the species and matures at about 15 -20' high and similarly to wider in width. It is very profusely flowering, especially when young, with its showy overlapping white bracts. Michael A. Dirr considers this to be one of the 'best *doers*'. While it is resistant to canker and moderately resistant to powdery mildew, it can get foliar leaf spot. Reddish to purple autumn color. We have it blooming in Madison, WI after winter temperatures of at least -20°F.

**'Spring Grove'** was discovered as a seedling in Spring Grove, Cincinnati, OH. Large white bracts up to 5" in diameter are profusely displayed. Abundant fruit set. Reddish purple autumn foliage. Maturing in the 20-25' range and wider in width. Flowering even after winters of at least -20°F. A bit more sensitive to diseases.

(**Pink flowering forms**) I have witnessed pink flowering form blooming for a few years in Madison and then they are gone. If anyone knows of a reliable pink flowered form, please advise!)

Cornus kousa var. chinensis – Kousa Dogwood in Japan, Yang-Mei in China. Kousa has a wide distribution in China, Korea & Japan. The variant *chinensis* was discovered in NW Hubei Province, China by Ernest H. Wilson in 1907. It is more vigorous and more freely flowering with white pointed wonderfully persistent bracts in early to mid-summer. My experience has been that it is a bit hardier than the straight species. With such a wide natural range, it's sad that horticulturists are not going back to its far northern range and returning with hardier genetic selections to work with. Var. *chinensis* grows to about 30 ft high and wide with a more upright young profile maturing to a nicely tiered spreading form. Some cultivars show alternate year flowering by flowering lightly one year and then intensely flowering the subsequent year. 'Edible' bright pinkish-red to red pendulous ½-1" raspberry-looking drupe fruits are a bit larger and sweeter tasting than the species, once they ripen to a mushy consistency. Most have 4" long rich green somewhat keeled and somewhat pendulous foliage with soft yellow autumn colors to excellent colors of brilliant reds, oranges and purples. Bark tissue is gray when young and exfoliating in puzzle-like patches of gray, tan and rich brown with age. Enjoys full sun to light deciduous shade in evenly moist acidic soils. Chlorosis will occur on limey soils. No serious pests and diseases, never-the-less,



they can still show an assortment of minor problems. There are more than 150 cultivars but the majority are not reliably hardy in Madison, WI. Cultivar dependent Zone 4b - 8. All var. *chinensis* are noted by a **c.** before the cultivar.

- **c.** 'Akatsuki' (Pretty Sunrise) flowers soft pink with irregular creamy white bordered foliage. Pinkish red autumn foliage. Smaller growing. Ideal for light deciduous shade. Maturing in the 20-25' range.
- 'Big Apple' is one of the largest flowering cultivars with  $5\frac{1}{2}$ " flowers. Larger fruits in the  $1\frac{1}{2}$ " diameter. Large thick, heavily-textured, dark green foliage.
- **'Blue Shadow'** has deep blue-green foliage with a nice sheen. Heavily flowering on a mature plant in the 25-30 ft. range and a bit less in width. Suitable for full sun location. Glorious bright yellow autumn foliage.
- **c. 'Crown Jewel' (Madison)** is like the species except the foliage emerges green and flushes golden yellow as the season go continues. Autumn foliage is reds and yellows.
- **c. 'Flowertime'** flowers over a long time, sometimes into September. It's a heavy flowering cultivar with fuller broader white bracts. Some years may be light in flowering.
- **c. 'Galilean' (Galzam)** is a vigorous larger leafed tree with impressive unusually broad creamy colored bracts. 25' high and wide.
- **'Gold Star'** is noted for its rich glossy green foliage with golden yellow centers. It may produce some green foliage reversions, which should be removed. Otherwise, a typical flowered form growing to about 15 ft. high and wide.

- **c. 'Golden Chalice'** has a creamy-yellow variegated leaf borders with more yellowish-green feathered centers. Large white bracts followed by raspberry-rose-colored berries-drupes. Autumn foliage is various shades of brick red. Matures in the 20 ft. high and wide range.
- **c. 'Greensleeves'** grows a bit more upright than most Kousa Dogwoods. It has good glossy dark emerald green wavy margined foliage with numerous large flowers. The wide bracts over-lap by nearly 50% providing a very full floral display above the foliage. The bract may retain a bit of green in them if they receive more sunlight. Maturing in the 20' high and wide range.
- 'Heart Throb' is indistinguishable from 'Miss Satomi'.
- **c. 'Jovce'** Unknown description at this time.
- **'Madam Butterfly'** There may be two cultivars with this name. One form has narrow bracts that point skyward at the tips, providing a wonderful open floral display. The other form has very broad overlapping bracts with flowers in excess of 5". Otherwise like the species.
- **c. 'Mandarin Jewel'** was selected for its pumpkin yellow-orange fruits but also has excellent dark green foliage and neatly formed star-like bracts. About 20 feet high and wide.
- **c. 'Milky Way'** is really not a cultivar but a blend of 15 different seedling that were selected by Wayside Gardens for their best qualities. Very variable due to seed raised plants.
- c. 'Milky Way Select' was selected from among the best of the 'Milky Way' seedlings and tissue cultures in Middleton, WI by Knight Hollow Nursery. Very heavy flowering with clean white bracts, abundant bright red fruits and excellent orange-red autumn color. Very resistant to anthracnose and powdery mildew. Grows about 20' high and wide.
- **'Pam's Mountain Bouquet'** has impressive broad white bracts that are fused in about half of the flowers, providing a square solid appearance. A bit later blooming on 20 x 20 ft. tree.
- **'Prophet' (Propzam)** is known for its superior foliage in that it is thicker, darker green and cleaner. It has substantial broad white flowers with overlapping bracts that are produced along the branches as well as at their tips. Autumn foliage is orange to deep red-maroon. Sweeter tasting fruits. Matures in the 25 ft. high and wide range.
- **'Parasol'** has large, bright over-lapping bracts with rounded tips. Each bloom has up to 8 or more bracts. Its growth habit is strongly arching but not weeping, providing a wonderful fountain in the garden. Excellent red autumn foliage.
- **'Radiant Rose'** is nearly indistinguishable from 'Miss Satomi'. It does have improved autumn color on a 20-foot high and wide tree.
- **c. 'Samaritan' (Samzam)** is one of the best variegated Dogwoods with narrow creamy-white borders on a milky gray-green burn resistant wavy edged foliage. Very heavy flowering with good form on an 18' x 18' tree. Pink and maroon autumn foliage.



'Satomi', I grow a wonderful 'Satomi' in my garden, 5 miles west of downtown Madison, for 20+ years. I started as a 12" cutting (as that was the largest offered from Forest Farm. It's now a 15 or so ft. tree (maturing in the 20' range.) with wonderful pealing bark and white flowers blushed pink. All of the so named pink cultivars are not a brightly colored if the season up to flowering is too hot and dry, or from another variable the tree objects to. It has more rounded rich green leaves with very depressed veins and autumn colors of fabulous reds and burgundies on the sunny side and very soft yellows on the inside and shady side. It has tolerated horrific winters in my garden. I have to treat it every few years for chlorosis as my soils are quite alkaline. DNA studies at the U. of Tennessee have determined 'Miss Satomi' is the same as 'Miss Satomi', 'Rosabella', 'New Red' & 'Heart Throb'.

'Square Dance' has overlapping white bracts the form a nearly square flower. Large fruits.

- c. 'Snowflake' a heavier flowering form of the species with larger wavier bracts.
- **c. 'Scarlet Fire' (Rutpink)** is one of the best pink forms holding its pink better than other varieties. Excellent autumn color. Moderate growth to a mature height of 20 feet high and wide.
- **'Summer Fun'** is a variegated Dogwood with broader creamy white borders with the green centers being more irregular. The foliage may burn if located in too much sunlight and not given proper watering. Maturing in the 20' high and wide range.
- **c. 'Teddy Scout'** has a soft golden border with green centered foliage, on a 20 ft. high and wide tree.

**'Wolf Eyes'** has wonderful variegated elongated cascading leaves with wavy white borders. As for most variegated forms, the foliage may burn if too sunny and dry. A smaller tree maturing in the 15' high and wide range for the light deciduous shady moist garden.

Cornus Xrutgersensis Rutgers hybrids are complicated crosses developed by Dr. Elwin Orton at Rutgers University. They are comprised of various crosses including: C. florida, C. kousa and C. nuttallii. Dr. Orton made his selection for hybrid vigor, dogwood anthracnose resistance, and borer resistance. Young trees display a more open appearance. Leaves are dark green and turn reddish-purple in the autumn. Trees are hardy to -22°F, with some tip damage at -30°F. Plant in very light deciduous shade with consistently moist acidic soils. We have tried the following in suitable locations with good success.

'Celestial Shadow' has leaves margined in yellow with irregular rich green feathered centers. White bracts with a tint of green when young. Maturing pure white. About 15 ft. high and wide.

**'Rosy Teacups'** has long lasting rose-pink over-lapping redder edged flowers on disease resistant trees. Maturing in the 20 ft tall x 25' wide range. Bright burgundy autumn foliage.

**'Stellar Pink' (Rutgan)** is very vigorous with a somewhat erect, yet nicely uniform growth habit. Soft pink rounded bracts that narrow at their base provide a distinct showing. Maturing in the 20' high and wide range.

Cornus macrophylla – Bigleaf Dogwood is tree native over a wide range of Central to southern China to Afghanistan, Pakistan and Korea. I have not been able to procure this plant but am looking forward to finding it. Or maybe growing it from seed. In Dogwoods by Paul Cappiello and Don Shadow, note it may mature in the 25-75'(!) range in its native range, but alas in our area, much less at 30-40'. A specimen at the Bernheim Arboretum at 15 years young, is over 15 feet tall. New stems are purplish maturing to smooth gray The leaves are up to 7" long and 3" wide and could be confused for C. alternifolia – Pagoda Dogwood on steroids, but the leaves are born opposite and not alternating. Autumn color is a muted red to yellow. Creamy white flowers are born in 6" diameter flat open lacy panicles. 1/4" blackish fruits. Supposedly, easily grown. With the above noted distribution, I am not surprised. Cappiello and Shadow note hardiness of Zone 5 to 7. Looking forward to seeing one in our area.... anyone?

Cornus mas – Cornel Cherry Dogwood is native to Central and Southern Europe through Western Asia. It grows as a larger multistemmed bush or tree, maturing in the 18-25' range. Grown as a tree, it is fine smaller tree for the smaller residential landscape. Flowering before the foliage, in fresh yellow, tight 1" diameter many-flowered umbels, along nearly all of the stems and even older branches, it just blasts its color to the world in April. Numerous pollinators and other opportunistic animals enjoy the blooms. 4" long elliptic bright glossy green foliage with its impressed veins provides a handsome touch. Autumn foliage is usually yellow. Bright scarlet-red glossy 3/4" fruits are edible once they become mushy – like jam, and may be eaten fresh or as fine tasting jams, jellies, etc. Birds and animals relish the ripe fruits. The fruits vary a fair amount in their flavor. The fruits have a stoney pit. Isolated *C. mas* are not as heavily fruit producing as



when they are when planted with a neighbor. Its bark is nicely flaky and exfoliating providing some winter interest. Its wood is dense and heavy. Easily pruned and tolerate most urban soil conditions. *Pseudomonas syringae* can be a problem on the foliage. Zones 4-7.

'Aurea' is like the species but has Golden foliage for the entire season.

'Aureo-Elegantissima' is like the species except the leaves are bordered in yellow, often blushed with pink with their centers a bright green. Best in light shady environments so as to avoid foliage burn.

'Flava' like the species but with larger, sweeter and yellow fruits.

'Golden Glory' is more upright growing and with more abundant flowers.

**'Pyramidalis'** is narrowly upright with an over-all vase-shaped growth pattern. A bit slower growing than the species.

'Spring Sun' (aka 'Spring Grove) is a heavy flowering form with heavy fruit set and thickly textured, dark, glossy green foliage.

**'Redstone'** was selected for its resistance to pests, for its 0.6" long, heavy fruit production and adaptability. Matures in the 20 ft. range in height and bit more in width.

**'Variegata'** is strikingly variegated with irregular creamy white borders with milky-green centered foliage. Best in light deciduous shade.

Cornus obliqua – Pale Dogwood is very similar to C. amomum but is a more open growing with purplish to yellowish-red stems. It enjoys very moist to wet soils in full sun to partial deciduous shade. Its dark green, 2-3" long foliage is ovel-elliptic to oblong, and dull gray-white to red-brown fuzzy lower side veins. White insect loving flowers are born in 2" cymes are followed by bluish-white fruits, relished by numerous birds and other animals. Maturing in the 10 ft. high and wide range bush. Native from Quebec to MN, IL and KS. Zone 3-7. 'Red Rover' (Powell Gardens) is a compact form maturing in the 5' ft. high and wide range. Clean summer, green foliage with white flowers that are followed by blue fruits. Yellow, red & maroon autumn color with burgundy winter stems.

Cornus officinalis – Japanese Cornel Cherry tree, from Japan and Korea, is very similar to *C. mas* and sometime included as a subspecies of it. However, *C. officinalis* has dense, rusty patches of down in the axils of the veins on the back side of the leaf and its buds are covered in a rusty brown pubescence. It also blooms earlier than most *C. mas*, in Late March to E. April in our area, with frost-tolerant bright yellow balls adorning much of the tree's twiggy tips. The bark is very showy with gray, brown and orange flaky patches. Its wood is very dense. Red fruits are very similar to *C. mas*. Maturing to about 25' in height and a bit wider in diameter. Easily cultured in most average garden soils in full sun to very light deciduous shade. Zones 5a-8.

**'Kintoki'** is like the species except the young branches have shiny dark brown exfoliating bark with the mature bark being significantly more colorful & exfoliating. Profuse sulfur-yellow flowers are stunning.

**Lemon Zest** has lemon-fragrant, bright yellow flowers in a bit more, open-flowered clusters.

**Cornus pumila** – **Dwarf Dogwood** is a dense twiggy shrub that matures in the 5' high range and up to 10' in diameter. Its emerging foliage is rich green, tinged red. Slightly fragrant white flowers in  $2\frac{1}{2}$ -3" cymes are followed by black fruits. Flowers are visited by many pollinators and well as other opportunistic feeders. Fruits are relished by many birds. Easily raised in full sun in most any average soil. Native to China. Zone 4b-7.

Cornus racemosa – Gray Dogwood is a suckering, large, finely twigged mass of upright gray stems maturing in the 10-15' range. It's native from ME to Ontario to MN, south to GA and NB. Spring foliage is green blushed with a bit of red, aging to dull gray green. Purplish autumn colored foliage. Blooming in Late May – E. June with 2" diameter cymes of white flowers followed by porcelain blush-white ½" diameter berries on bright reddish-orange pedicels (stems). The fruit appear to glow on a bright moon light night. Numerous pollinators and other opportunistic feeders visit its flowers. Over 100 kinds of birds relish the fruits. Very easily raised in most soils and from full sun to deep deciduous shade. Each stem lives about 10-20 years. On the spreading forms, prune out the 5-10 years stems to keep it vigorous. Cosmetic foliar diseases may be a problem later in the season, but they are not harmful to the plant's health. Zones 3 to 8.

**'Cuyahoga' (Cuyzam)** grows about 15' high and may be raised as a small tree buy removing its basal suckers. Brilliant white fruits on burgundy-red pedicels. Rich burgundy wine autumn color.

**'Geauga' (Geazaom)** grows to about 10' and can spread indefinity. Mahogany red new leaves mature to blackish-green and deep purple in the autumn. Ideal for large slope erosion control.

**'Huron' (Hurzam)** grows to about 6' high and can slowly spread indefinitely. It is more of a compact globose form. White fruits and burgundy-red autumn color. Resistance to leaf spot.

**'Mahoning' (Mahzam)** is a strong grower in the 10' high and can spread indefinitely via stolons. Narrow graygreen foliage and white fruits. Wonderful for erosion control and slope stabilization in shady locations.

**'Muskingum' (Muszam)** is a low grower in the 2-3' range with lax stems and forms tighter mounds than most other forms. Gray-green foliage turn brick-red in the autumn. White fruits. Another form that is great for erosion control and slope stabilization in shady locations.

**'Ottawa' (Ottzam)** is an upright growing form to 12' tall and about 6' wide. Very dark glossy green foliage. If its basal suckering is removed, it produces a very handsome small tree.

**'Snow Lace' (Emerald)** is a somewhat more compact form maturing in the 9' high and wide range. Semi-glossy emerald green leaves with purple autumn color. Very freely flowering with abundant white fruits with red pedicels.

**'Snow Mantle' (Jade)** is a large maturing form in the 15' range and about 8' wide. Deep blue-green disease resistant foliage turns a nice purple in the autumn. Abundant fruits on an umbrella shaped small tree. Remove most of the basal suckers, leaving one or so to replace the oldest one when it lives out its live span.



## Cornus racemosa x C. amomum

'Irish Setter' is a wonderful hybrid between 2 of our native species that was selected by Johnson's Nursery in Menomonee Falls, WI. Maturing in the 12' range, it forms a tighter slower suckering mass of upright young stems that turn a reddish orange in the winter. New emerging foliage is green blushed wine red that matures green, and turns maroon in the autumn. Pollinator loved creamy white flowered cymes are followed white berries with persistent red pedicels. Numerous birds love the berries. Prune out the stems that are over 10-15 years old.

*Cornus rugosa* – **Rough or Round Leaved** Dogwood is a coarse shrubby species maturing in the 10 ft. tall and wide range. It is best suited for naturalizing. Green stems age to purplish, warty surfaced stems. Flat, white cymes are followed by pale to almost steely blue

fruit that are beloved by birds. Pollinators and others love the flowers. Autumn color is usually red on the sunny side of the plant. Enjoys good moisture and nearly any average garden soil in light deciduous shady conditions. Native to Northern MN to ME and south to KY. Zone 3-6.

Cornus sanguinea – Redtwig, Bloodtwig, Common Dogwood is native to Europe. Maturing in the 15' high and wide range, it forms large unkempt, spreading, dense twiggy masses that suckers freely, forming colonies. Its sunlight stems are red in the winter, otherwise green. Stems older than 5-10 years should be pruned out to help maintain vigor. Dull dark green leaves change to greenish purple and occasionally blood red in the autumn White, fuzzy fetid smelling flowers are produced in cymes up to 2" in diameters. Not always visible due to heavy foliage. \(^1/4\)" drupes – berries, are shiny purplish black and are sometimes unnoticeable within the foliage. Deer enjoy munching on the new shoots. Tolerant of most any well drained to very moist conditions in sun to partial deciduous shade. The species is rarely available. Zones 4-7.

- 'Arctic Sun' is an improved compact form growing in the 3-5' high range and a bit wider with red tips, orange centers and bright yellow bases on the winter stems.
- 'Compressa' is a dwarf very upright form with rounded  $1\frac{1}{2}$ " x 1" leaves with deeply impressed veins. Maturing in the 10-12' range. Flowers unknown. Autumn color is green. Some suckering.
- 'Midwinter Fire' (aka 'Winter Flame') has red stems at the base grading to orange upward and then to yellow at the tips. Prune out stems that are 5 or more years old to encourage new more colorful younger stems. Matures in the 8-10 ft. high and wide. Young foliage often emerges blushed bronze maturing to a darker green.
- 'Winter Beauty' (aka 'Magic Flame') is a more upright slower grower with far less suckering. Winter color is more toward the reds and corals. Autumn foliage is a clear yellow.

Cornus sericea – Redosier Dogwood (formerly C. stolonifera) is a broad spreading suckering, stoloniferous shrub maturing in the 10' high and wide range. Stem range in color from dark red, to purplish, to brilliant red, orange, and yellow, providing very attractive winter interest. Stems under 5 years old may be woven into baskets, mats, etc. Stems older than 5 years should be pruned out at about 6-12" from ground level to encourage fresh colorful stems. Medium to dark green seasonal foliage gives way to purplish to reddish autumn colors. Somewhat malodorous ivory to creamy-white flowers and born in 1½-2½" diameter flat-topped cymes in mid to late spring. Very attractive to pollinators and other opportunistic feeders. Milky-white 1/3" berries are readily consumed by birds and other creatures. It performs best in moist soils but is adaptable to nearly any soils. Best located in full sun to light deciduous shade. Native to much of North America from OK east and to the far north. Many of the cultivars are prone to stem canker and foliar diseases. Spring azure butterfly feeds on this dogwood. The following are more resistant to those scourges. Zone 2-7.

- 'Arctic Fire Red' is a compact form growing in the 3-5' high range and a bit wider with dark red winter stems. 'Arctic Fire Yellow' is a compact form growing in the 3-5' high range and a bit wider with bright yellow winter stems.
- 'Cardinal' has brilliant red winter stems, but otherwise like the species.
- **'Firedance'** is a very compact shrub maturing in the 5' high and wide range. With branching to ground, it may stand alone in the landscape without foreground plantings. Sparsely flowered flat cymes of white flowers mature into white berries. Very attractive brick-red autumn color gives way to showy red winter stems.

**'Pucker Up'** is a very unique vertical growing dogwood with very quilted ~1" round green leaves. I have not seen it bloom yet. No autumn or winter color to note. Grows about 8-10' and 2-3' wide. Remove suckers if and when they form to maintain its individual appearance.

Cornus walteri – Walter Dogwood is a rare Central China tree species maturing in the 30-40 ft. high range. Medium green foliage with embossed veins is very handsome but the tree lacks any significant autumn color. However, the mature bark is very handsome with a blocky texture reminiscent of alligator skin. Very light fragrant white flowers are born in 2-3" cymes that are followed by 1/4" shiny black fruits. Pollinators love the flowers and birds relish the fruits. Average soils in sunny locations suit it best. Zone 5-7.