

Magnolias of Powell Gardens, Kansas City's Botanical Garden (with notes on their cultivation throughout greater Kansas City, Missouri and Kansas)

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Powell Gardens harbors an extensive collection of Magnolias as they are one of the most spectacular of hardy flowering trees. Visitors will see magnolias displayed throughout the grounds with the biggest variety growing east of the Visitor Center. Many of the newest hybrids are small because landscape-size plants are not yet available from nurseries. The goal of the Powell's collections is to display the best ornamental trees for greater Kansas City. Magnolias that perform in our often variable climate form the core of the collection.

Horticulturally, magnolias grow well in greater Kansas City—most thrive in heat and humidity, so it's our severe dry spells in summer and occasional and abrupt severe winter cold that is their enemy. Magnolias are forest trees so all do well in the shady understory of woodlands, but many thrive and bloom heaviest in full sun. Oyama and some big-leaf types demand shade in our intense summer sun. Many of our new, small magnolias struggled in the two hot, dry summers of 2003 and 2004. And, one of our biggest problems at Powell Gardens has been with squirrels girdling the stems in late summer and fall.

Kansas City's climate is a classic, continental climate. Summers are very hot and humid, with a consistent average high of 89°F (31.7°C) in July. This heat puts Kansas City in AHS heat zone 7, along with St. Louis, Atlanta, Charlotte and Washington D.C. The summer heat helps ripen wood and improves hardiness of some species like *Magnolia grandiflora*. Nighttime temperatures remain high, but unlike much of the Southeast there is usually a summer breeze and often a hot wind from the southwest. This can sometimes cause furnace-like conditions in the peak of summer. Because of these conditions, Bigleaf magnolias are best sited north and east of buildings or windbreaks. Timely rains usually occur, but the frequency of dry spells appears to have increased recently with extreme drought in the region in 2003.

In winter, Kansas City can be very mild with quick warm-ups that sweep up or across the Great Plains. Arctic fronts are expected each year, however, bringing below zero (F°) weather. Kansas City is currently de-

picted as an island of USDA zone 6, surrounded by zone 5b (the newest zone map shows us solidly in zone 6: www.arborday.org). On average, the minimum low is around -5°F (20.5°C); but in the late 1970s through 1980s there were many colder winters—the coldest being 1989—when the all-time record low of -24°F (-31°C) was reached and -20°F (-20°C) occurred across greater Kansas City. It dropped to -27°F (-32.8°C) at the then brand new Powell Gardens during that arctic outbreak but Powell Gardens has been a solid zone 6 for the past decade and a half! In general, Powell Gardens lies in a bowl surrounded by low hills and is five degrees colder than midtown Kansas City. Snowfall is inconsistent and rarely stays on the ground for more than one week as the average winter high remains above freezing all winter long. The average yearly snowfall is around 20 inches per year. Ice is a major winter menace with a catastrophic ice storm occurring in January 2002, when nearly all mature trees lost the top 20% of their canopy.

Spring comes early to Kansas City—comparable to about Baltimore on the east coast. Saucer magnolias are usually in peak bloom in mid to late March. They are always subject to frost and freeze damage at that time! The last spring frost is usually in mid April while the first fall frost is usually in late October. We have experienced frost in early May and late September, however. The overall long growing season coupled with summer heat and brief winter cold, create a climate just fine for growing most temperate magnolias.

Subgenus Magnolia, section Magnolia (formerly section Theorhodon)

***Magnolia grandiflora* (Southern Magnolias)**

This evergreen is the quintessential, Southern garden tree and is just hardy enough to survive in greater Kansas City, if one plants hardy selections in winter wind- and sun-sheltered sites. Some often suffer from winter burn and look ragged by spring but quickly recover in May. Huge, fragrant white flowers are produced in late spring and occasionally through fall. They are the most vigorous magnolias at Powell Gardens and thrive in our hot summers, often growing 3ft (0.9m) and more per year.

Older Southern Magnolias found growing about the metropolitan area are always green-backed types or with small amounts of indumentum. This magnolia is surprisingly hardy to -10°F (-23°C) but really prefers to live where summers are hot and winters are mild. I was surprised to see so many of these trees in greater Kansas City when I moved here nine years ago—they shouldn't grow here! Here, at its northern outpost,

it is a stunted tree usually no more than 30ft (9m) tall. After hard winters, its foliage can be burned to look like leather and I know that severe winters have killed trees. Are we being cruel to grow them here? They love our summers and new, hardy cultivars of this tree are being grown. We have propagated some of the region's best trees and grow them at Powell Gardens. They have all survived brief -20°F (-29°C) during the cold winters in the 1970s and 1980s.

When visiting, take a walk around the Visitor Center (vc) to see a collection of the hardiest cultivars. Our biggest problem with these magnolias is that young plants have a second flush of growth late in the season, which doesn't harden off in time for winter. We recommend no fertilization after June and to clip off any new growth in late summer/fall. In greater Kansas City this plant appreciates being planted in a site sheltered from winter wind and winter sun. If cold winter temperatures or winter sun burn their leaves, they are quickly replaced by glossy new leaves in spring. Allow the tree to be branched to the ground so its own foliage will shelter its trunk—otherwise be sure to winter-wrap the trunk to prevent sun scald and winter injury. Winter ice storms are also tough on *Magnolia grandiflora*, maybe less so on trees allowed to branch to the ground as the lower branches support those above.

Powell Gardens' collection of Southern Magnolias includes only proven hardy cultivars, their seedlings and trees propagated from local, long established trees. Seedling *Magnolia grandiflora* are occasionally available at local garden centers but more often at big-box retailers.

Magnolia grandiflora 'Bracken's Brown Beauty.' Our largest tree (21ft—6.4m) routinely has leaf burn but always hardens off well in the fall. This tree is a 2003 Plant of Merit (a program of the Missouri Botanical Garden, Powell Gardens and the University of Missouri Extension to promote under-used and outstanding plants dependable in the lower Midwest). This cultivar is currently planted by the thousands around greater Kansas City. It is not flawless and, in the past, has been killed by winter cold or abrupt winter temperature changes.

'Bracken's Brown Beauty' seedlings: we have some on trial plus it is the only *Magnolia grandiflora* I've seen self sow in greater Kansas City.

Magnolia grandiflora 'D. D. Blanchard.' Rarely planted in the region but so far has performed as well as Bracken's for us. Our small tree (8.25ft—2.5m) on the south side of the vc has taken -9°F (-22.8°C) here with no extra damage. It is occasionally available at local garden centers.

Magnolia grandiflora 'Edith Bogue.' This is the second most available cultivar and is occasionally planted in greater Kansas City. It and its seed-

lings have outperformed all others in hardiness for us. It hardens off well in the fall, has the typical huge flowers of the species and a lovely, open crown with almost sympodial branching.

'Edith Bogue' seedlings: we have planted some on the grounds and they have been nearly flawless in leaf burn so far. We gave away hundreds of seedlings to visitors one year.

Magnolia grandiflora 'Little Gem.' Not considered hardy except for in sheltered courtyards in midtown. An excellent container plant at Powell Gardens! It is occasionally for sale at local garden centers.

Magnolia grandiflora 'Poconos.' Has not performed as well as Edith Bogue with more leaf burn and has routinely had more damage from heavy snow and ice.

Magnolia grandiflora 'Twenty-four Below.' Has been incredibly vigorous for us, and thus, has been severely damaged by cold because it doesn't harden off well in fall. It also was nearly demolished by the catastrophic ice storm in 2002. The tree has currently recovered and is our third largest (19ft—5.8m)! Grows like a weed—easily 4 to 6 feet per season.

'Twenty-four Below' seedlings: We have grown several of these for trial and they look like the parent but have hardened off better for us.

Magnolia grandiflora 'Victoria.' Has proven very hardy but was severely damaged by the 2002 ice storm and is still recovering. Routinely, has late season growth subject to freeze damage. It is occasionally found at local garden centers.

One can occasionally see 'Mgtig' (Greenback™) and 'Russet' at local garden centers. We have not grown 'Russet' and I have Greenback in my personal garden. Greenback readily suffers foliage burn in our climate.

Magnolia grandiflora 'Barbara Hull.' Our selection (not a registered cultivar) from a tree that is branched to the ground and growing in the open in Warrensburg, MO (20 miles southeast of Powell Gardens). This tree has exceptional hardiness and tolerance to ice, winter wind and sun with full-sized flowers, abundant fertile cones, dark green foliage and a rather dense, pyramidal form. If I could plant only one *M. grandiflora* here, it would be this one.

'Barbara Hull' seedlings Seedlings of the above, one of which has grown on to become a respectable little tree—demonstrating exceptional hardiness.

Magnolia grandiflora 'Kansas City' (not registered). Grown from cuttings taken from the champion greater Kansas City southern magno-

lia. This tree is growing in the open on a windswept front yard and is 40ft (12.2m) tall, 44ft (13.4m) crown spread with a trunk circumference of 64in (162.5cm). Only two minor branches broke in the 2002 ice storm and the trunk shows no signs of prior cracking. A settler from Mississippi brought the original tree to Kansas City. It is very floriferous and fertile.

Magnolia grandiflora 'Margarite.' Our selection (not registered) from a tree in Independence, MO that shows tight compact growth, more apple green foliage and abundant, full-sized flowers. It blooms more than any other cultivar and grows very fast, putting on 5ft (1.5m) of growth last year. All secondary twigs are tipped with flower buds! When hardened off properly, easily weathers -10°F (-23.3°C). Cuttings readily bloom in their second season. This plant is very fertile and we shared seed of this plant with Mark Saner for the Magnolia Society Seed Exchange.

Magnolia grandiflora 'Odessamo.' Our selection (not registered) from a tree growing in a sheltered site in Odessa, MO. The tree has had no significant leaf burn in the past decade and may be a sport of patented 'Majestic Beauty.' The foliage and flowering are typical of 'Majestic Beauty' but with improved hardiness. The parent tree has two growth forms!

***Magnolia virginiana* (Sweetbays)
(formerly separate in section *Magnolia*)**

Sweetbay is a delightful small tree here with apple green, tardily deciduous or semi-evergreen leaves. The flowers are small and somewhat hidden among the foliage, but their lemon-y aroma drifts to perfume quite a space. They bloom heavily in May and occasionally until frost. Sweetbay's foliage is silvery blue underneath, which is beautifully displayed all summer in our breezy climate. These magnolias like moisture and even wet feet and should not be planted in dry locations. It appears that drought stress is their number one enemy here along with alkaline water and soil. However, plants that receive adequate moisture appear completely hardy. To us, there are clearly two forms: (these are sometimes not accepted as botanical varieties according to the new *Flora of North America*, for example). The southern form (var. *australis*) is more upright, evergreen and treelike, almost never sending up extra basal shoots. In our climate the evergreen leaves are often quite tattered looking by spring, but established, more mature trees, seem to hold their leaves better. This form is recognized as a recommended Plant of Merit for gardens in our region. It has just recently become available at some local nurseries. Northern forms (var. *virginiana*) are more bushy, wide crowned,

tardily deciduous and multi-trunked—always sending up basal shoots. Locally, they reach a tidy 15–20ft (4.6–6.1m) in height; surprisingly, there is no Sweetbay listed in the Champion Trees of greater Kansas City.

Magnolia virginiana var. *australis* (Southern Sweetbay)

Magnolia virginiana 'Henry Hicks.' We have two forms acquired under this name, one from Fairweather Gardens that looks exactly like sweetbays I've seen labeled as such on the Swarthmore Campus (PA) and one from Arbor Village Nursery propagated from a very different looking tree at Bernheim Arboretum (KY). The Fairweather form on the south ramp of the vc (15ft (4.6m) tall) has been much more vigorous and generally an outstanding tree, while the Arbor Village form found south of the Perennial Garden Arbor has more long evergreen leaves and much less vigor here and also in my own yard.

Magnolia virginiana 'Mattie Mae Smith.' A knockout variegated sweetbay we had to salvage after being accidentally damaged in the garden. It is in the greenhouse recovering.

Magnolia virginiana 'Milton' seedlings: These have been outstanding with narrow, evergreen leaves. One is on the southeast side of the vc and one is in the rain garden below the vc.

Magnolia virginiana 'Moonglow' aka 'Jim Wilson.' We have a young plant northeast of the vc but it has not been as vigorous as Henry Hicks Fairweather. It has chlorosis problems and requires acidifying fertilizer.

Magnolia virginiana 'Northern Belle.' Young plant showing evergreen foliage northeast of the vc.

Magnolia virginiana 'Santa Rosa.' New plant but displaying excellent evergreen foliage northeast of the vc.

Louisiana Sweetbay Magnolia (var. *ludoviciana*). We purchased this tree from Woodlanders and it looks like it has some *M. tripetala* blood in it to me! It is very vigorous (10 ft. tall) with larger leaves and flowers and is so far hardy but has shown signs of chlorosis and required acid fertilizer treatments.

Magnolia virginiana var. *virginiana* (Northern Sweetbay)

These are the typical sweetbays offered for sale in Kansas City nurseries. It is probably the third most popular magnolia after saucer and star magnolias in local gardens. They are tardily deciduous, multi-trunked and perform well as large shrubs or small trees. We have grown seedlings

from mature trees at Hallmark Headquarters in Kansas City and they bloomed on their second season, which is not unusual for this taxon.

Section Manglietia

Magnolia insignis (Wood Lotus Magnolia). We tried this plant in a sheltered ravine in the Rock and Waterfall Garden but it did not survive a late cold snap in March with temperatures below zero.

Section Rhytidospermum, subsection Rhytidospermum ("Propeller" Magnolias)

Magnolias with large, tropical-looking leaves and unique flowers set in a whorl of the nearly full-size leaves. Our gardeners call *M. officinalis* ssp. *biloba* "the propeller tree." They are forest understory species and need shelter from our summer winds on the north or east side of a building or windbreak. A great plant to shade a patio! All except *M. obovata* have proven tolerant of full sun here. Unfortunately, these trees are rarely planted in greater Kansas City and I have never seen one for sale at a local garden center.

Magnolia obovata (*M. hypoleuca*) (Japanese Whitebark Magnolia). Our plant is not pure and is possibly a *Magnolia Oyama* Subsection or hybrid thereof.

Magnolia officinalis (Medicinal Magnolia). We have had this tree for several seasons but have not yet planted it on the grounds; we are awaiting the construction of our Fountain Garden. It has bloomed in the greenhouses in late winter.

Magnolia officinalis ssp. *biloba* (Two-lobed Medicinal Magnolia). This tree has been vigorous, floriferous and hardy but subject to chlorosis. It was moved to allow for new construction and is currently balled and burlaped (12ft (3.7m) tall) while awaiting completion of the Fountain Garden.

Magnolia tripetala (Umbrella Magnolia). Wild populations of the Umbrella Magnolia have been recently discovered in southern Missouri. They do fine in Powell Gardens in a somewhat wind-sheltered site, even in full sun. Our plant is in the shady woodland Rock and Waterfall Garden. This plant is often host to Eastern Tiger Swallowtail (butterfly) caterpillars, which do little damage. We do know of one large Umbrella Magnolia growing locally in Independence, MO on the east side of a house in full sun (and no extra irrigation). It has been nominated for the champion tree list of greater Kansas City.

'Bloomfield' seedling: We have a nice tree for shock value on our "first impression curve" where one enters the gardens from the Visitor Center.

**Section Rhytidospermum, Subsection Oyama
(Oyama Magnolias)**

Of the three or four species of these refined shrub-like magnolias, at least one (*M. sieboldii*) survives in greater Kansas City as long as it's given shade from the hot mid-day and afternoon sun. If planted where they receive any afternoon sun they suffer leaf scorch and are "toast" here. A plant of *M. sieboldii* in my own garden died from mid-day sun. A shady site with moist well-drained soil is critical for these plants locally. They are seldom seen in local gardens and very rarely for sale at local garden centers.

Magnolia sieboldii (Oyama Magnolia). We have three plants in the Rock and Waterfall (shade/woodland) garden. One plant is particularly well established and has bloomed each year.

Magnolia 'Colossus.' We have this cultivar with larger flowers and thicker foliage in the Rock & Waterfall (shade) garden, it has bloomed each year but has not been very vigorous.

We have *Magnolia sieboldii* ssp. *sinensis* and *Magnolia wilsonii* on order this spring.

Section Auriculata

Magnolia fraseri (Fraser Magnolia). Our first seedling did not establish and died in the summer drought. We have acquired a second seedling plant for trial in the Rock and Waterfall (shade/woodland) garden. We know of a fine plant against the north side of a house in a private garden in St. Louis. We know of no trees in greater Kansas City and it is never for sale by local nurseries.

Magnolia fraseri var. *pyramidata* (Pyramid Magnolia). I have admired this tree ever since seeing it in the wild at Torreya State Park in Florida. The whorls of elegant "eared" leaves are outstanding ornamentation all growing season. We have three plants in the Rock and Waterfall (shade/woodland) garden: one blooming tree (12ft—3.7m) from Fairweather Gardens in New Jersey and two saplings from Woodlanders in South Carolina. So far this species has been very vigorous and hardy for us; its only setback was severe damage from a falling tree crown in the 2002 ice storm (it has fully recovered). It appears to be tolerant of mid-day sun here.

Section *Macrophylla* (*Bigleaf Magnolias*)

Magnolia macrophylla (*Bigleaf Magnolia*). Every four years, we lose Powell Gardens' small tree of this species to voles who girdle the base of its trunk in winter! We have our third replacement in the Rock and Waterfall Garden in a new location. The tree is very successful in Kansas City when planted in a site sheltered from the summer wind. The champion tree for greater Kansas City is 44ft (13.4m) in height with a 20-foot (6-m) spread and a 26-inch (66-cm) circumference. A 4-inch (10-cm) wild seedling from Gaston County North Carolina has grown explosively to over 8ft (2.4m) in five years in my personal garden. There is one local nurseryman who grows this plant for wholesale sales.

Magnolia macrophylla ssp. *ashei* (*Ashe Magnolia*). This species has proven fully hardy when grown where sheltered from summer and winter winds. We like its full-size flowers on young plants and elegant, huge leaves. It is now 8ft (2.4m) in height and grows below the south bridge of the Rock and Waterfall Garden where its flowers and foliage always delight visitors. It is seldom seen in local gardens but is sold in a few mainstream mail order catalogs.

Subgenus *Magnolia* *hybrids*

Magnolia 'Porcelain Dove' (*M. globosa* × *M. virginiana*). This plant has grown and bloomed well for us just outside Café Thyme in the Visitor Center.

Magnolia × *weisneri* (*M. obovata* × *M. sieboldii*) (*Weisner Magnolia*). We planted this naturally occurring hybrid in the Rock and Waterfall Garden but it was killed by defoliating grasshoppers.

Magnolia (*M. tripetala* × *M. sieboldii*) 'Charles Coates.' This hybrid cultivar has been very vigorous and bloomed well for us. It is located in the Rock and Waterfall Garden, east of the north bridge.

Subgenus *Yulania*, section *Yulania*, subsection *Yulania* (*Yulania Magnolias*)

Yulania magnolia flowers are often frosted in our manic depressive climate—fooled into bloom by an early warm spell and then killed by a subsequent freeze. The frozen flowers quickly turn brown and freeze dry on the plant—not a pretty sight! (Those species in the former *Buergeria* Section do have flowers that show some frost and freeze tolerance.) Every other aspect of these trees is lovely: rich green foliage and a smattering of bloom all summer, smooth gray trunks which age into fabulous living sculptures and fuzzy winter bud perules that many think

are pussy willows. When the spring is mild and they are in full flower, they are a site to behold, but they should also be judged by their beauty the other 50 weeks of the year. We recommend Kansas City gardeners to plant these magnolias in moist, well-drained soil in full sun or light shade with protection from full morning sun. We have lost several young plants when they were literally fried by morning sun on frosted, young foliage. They are not for the open prairie and do better in a sheltered neighborhood or woodland setting. They are very rare in local gardens and I have seen only *M. liliiflora* 'Nigra' for sale at local garden centers. The hybrid, the saucer magnolia *M. × soulangeana*, is the most commonly planted magnolia in greater Kansas City.

Magnolia denudata (Yulan). We do not have the species represented on the grounds but the Linda Hall Library in Kansas City has a 19ft (5.8m) tree that was recently moved for parking lot construction. So far it has survived being transplanted.

Magnolia denudata 'China Doll.' We planted this cultivar northeast of our Visitor Center but it did not survive successive droughty summers.

Magnolia denudata 'Gere.' A small plant of this cultivar selected from Urbana, IL by Joe McDaniels can be found in our Rock and Waterfall Garden. It has not yet bloomed.

Magnolia cylindrica (Cylindric Magnolia). We have a small plant east of the Visitor Center that has yet to bloom.

Magnolia liliiflora (Lily Magnolia). We do not yet have this species at Powell Gardens but have found a local mature plant of this species in Historic Lexington, MO about 25 miles northeast of Powell Gardens. New homeowners cut it down but allowed it to resprout! We plan on requesting some cuttings. The cultivar 'Nigra' can occasionally be seen in local gardens, maturing at around 8ft (2.4m) in height with nearly a double spread.

Magnolia liliiflora 'O'Neill.' This cultivar of the Lily Magnolia can be found by our Visitor Center Trolley Stop. It has bloomed well for us but it is a grafted plant and large sprouts from its understock need to be continually removed.

Magnolia sprengeri 'Diva' (Sprenger Magnolia). We have planted a small grafted plant from Arbor Village Nursery in Holt, MO. The tree has been marginally successful for them just north of Kansas City. Our plant has not become established.

The former section *Buergeria*

I still like to think of these as separate from section *Yulania*. The kobus magnolias are precocious magnolias from comparable climates in eastern Asia and their flowers show some resistance to frost. They are the hardiest magnolias and have very showy flowers before the leaves emerge. They also get better with age and can become magnificent plants of gnarly smooth gray twigs tipped abundantly with fuzzy flower buds. Their thick, leathery leaves perform well in full sun or high shade and turn shades of golden brown in autumn. *Magnolia stellata* and *M. × loebneri* are frequently planted in greater Kansas City; only *M. × soulangeana* is more commonly cultivated.

Magnolia kobus (Kobus Magnolia). We know of no local trees and it is not for sale at local nurseries.

Magnolia kobus 'Borealis.' Powell Gardens has an established small tree east of the Visitor Center. It blooms quite reliably and shows some resistance to frost.

Magnolia stellata (Star Magnolia). Star Magnolias were one of the first magnolias planted at Powell Gardens around 20 years ago. They are very reliable here with flowers opening as early as late February but regularly by mid to late March. They have quite a tolerance to late frosts and freezes and the plants become gnarly and picturesque in the winter landscape. Our largest plants are on the west side of Trigg Building; younger plants can be seen east of the Visitor Center. The champion star magnolia for greater Kansas City is 20ft (6.1m) tall with a spread of 18 feet and a trunk circumference of 17 inches. This is the second most commonly planted magnolia in the region.

Magnolia stellata 'Rosea.' We have a small plant of this cultivar beside the Visitor Center trolley stop.

Magnolia stellata 'Royal Star.' We have a small tree (9ft—2.7m) acquired as this cultivar northeast of the Visitor Center. It looks just like all the white star magnolias on the grounds but blooms a bit later. This tree was moved at full size to allow for construction.

Magnolia stellata 'Rubra' seedlings: Our original plant of this cultivar did have lovely pink flowers but it succumbed to drought. We grew seedlings from the plant and they display the same, more rugose foliage of the original cultivar but they have not yet bloomed.

Magnolia stellata 'Waterlily.' We have a plant acquired as this cultivar planted between the Rock and Waterfall Garden and the Perennial Garden. It is later to bloom with pinkish buds.

Magnolia salicifolia (Anise Magnolia). We only have the cultivar 'Miss Jack' on the grounds east of the Visitor Center. It blooms reliably in spring. The greater Kansas City champion tree is located at Linda Hall Library in Kansas City. It is 32ft (9.7m) in height with a spread of 29ft (8.8m) and a circumference of 62in (154cm). We plan on propagating this very beautiful and reliable tree—it has bloomed better than any other that we know of following severe, late freezes. It is probably of hybrid origin and does not have the anise scented leaves typical of the species.

Magnolia 'Miss Jack.' Powell Gardens has this cultivar east of the Visitor Center. It has bloomed reliably and does not have anise scented leaves.

Magnolia zenii (Zen Magnolia). A young plant of this species can be found growing east of the Visitor Center. It has not yet bloomed for us.

Section Yulania, subsection Tulipastrum (Cucumber Magnolias)

Magnolia acuminata (Cucumber tree). The Cucumber tree is probably the most well-adapted magnolia species in Kansas City. Unfortunately, it is rarely planted here and not well known at all. It is by far the largest growing magnolia species here: the greater Kansas City champion is 70ft (21m) tall, with a spread of 65ft (19.8m) and a circumference of 98 (249cm) inches. We recommend it locally as a fine shade tree. It produces a reliable golden yellow and brown fall color each fall. Powell Gardens' largest plant (21.75ft—6.6m) is still young and is found in the Woodland Border on the north side of the Perennial Garden.

Magnolia acuminata 'Brenda.' We planted this cultivar on either side of the gatehouse's entrance gates. They have grown well and produced nice yellow flowers. We hope that they will one day make nice pyramidal trees of coarse textured leaves to grace the Powell Gardens' public entrance.

Magnolia acuminata 'Koban Dori.' We have planted this cultivar along the Dogwood Walk and have actually been asked what kind of yellow dogwood it is! It has not been at all vigorous for us.

Magnolia acuminata var. *subcordata* (Yellow Cucumber tree). We have this variety on order for planting this spring.

Magnolia acuminata 'Miss Honeybee.' We have this plant newly planted east of the Trolley entrance to the Perennial Garden.

Section Michelia, subsection Michelia

Magnolia figo (Banana Shrub). This plant makes a fine container plant here and goes into our cool house for the winter.

***Magnolia* × *soulangeana* hybrids**

Magnolia × *soulangeana* (*M. denudata* × *liliflora*). Saucer Magnolias are well known and the most commonly planted magnolia in greater Kansas City. The champion tree is 34ft (10.4m) with a spread of 32ft (9.75m) and a circumference of 76in (193cm). Powell Gardens' oldest tree is southeast of the Daycare/Intern Housing (former Visitor Center). Their flowers are usually injured by frost in our region but they are just as often quite wonderful. It is not 100% accurate to recommend only the later blooming cultivars—sometimes the earlier ones bloom during a warm up and the later ones are subsequently frosted! Unfortunately, the cultivars are almost never available in garden centers.

Magnolia soulangeana 'Alexandrina.' We have two small trees of this cultivar planted northeast of the Visitor Center. It has been quite reliable and receives just enough morning shade in its location to survive a late frost. This cultivar is occasionally for sale in local garden centers.

Magnolia soulangeana 'Amabilis.' We have a small plant planted east of the Visitor Center. It receives too much morning sun and its flowers have been destroyed by frost.

Magnolia soulangeana 'Big Pink.' We have a very small, three-season old plant northeast of the Visitor Center that has not become established.

Magnolia soulangeana 'Grace McDade.' I acquired this plant after seeing the spectacular tree in bloom at the National Arboretum. It is located northeast of the Visitor Center. So far it has not bloomed for us and has been routinely damaged by squirrels.

Magnolia soulangeana 'Lennei Alba.' We have a small plant of this in the Rock and Waterfall Garden. So far it has not yet bloomed.

Magnolia soulangeana 'Liliputian.' Ours are cutting-grown from a very successful compact tree (originally purchased from Fairweather Gardens) in a private garden in Rockford, IL. We had to move our three plants because they were located where early morning sun not only damaged the flowers on frosty mornings but also killed new growth. One actually died but two are now located between the Rock and Waterfall and Perennial Garden.

Magnolia soulangeana 'Rustica Rubra.' Our four largest trees encircle the garden in front of the orangerie at the Kauffman Memorial Garden in Kansas City. (This 2-acre garden is part of the Kauffman Legacy Park in the heart of Kansas City. Powell Gardens, in partnership with the Kauffman Foundation, manages and maintains the garden.) They all came from the same source and look the same in spring bloom but the



Magnolia soulangeana 'Rustica Rubra.'

southwestern tree is special in that it produces many deep burgundy, goblet-shaped blooms in the summer! (See photo.) We plan to propagate this plant. We have two small trees northeast of the Visitor Center that are cutting-grown from a tree in Rockford, IL.

Saucer-like hybrids

Magnolia 'Eskimo' (*M.* 'Lennei' × *M.* *kobus*). Here's a classy new cultivar we really admired until last spring's surprise freeze in early May literally killed the whole plant (it was done blooming). Again, it was located in unobstructed morning sun. We have it on order for replacement in a new location.

Magnolia 'Paul Cook' (*M.* 'Lennei' × *M.* 'Diva'). This plant was located next to Eskimo and was also severely injured by last May's surprise freeze. We plan to propagate and move the plant to a new location. We have not been overly impressed by this tree, but it is in a bad location. This tree is very special to our local Iris expert, Dr. Norlan Henderson (age 90) because it is named after his late great friend and was hybridized by Frank Galyan, his other former iris buddy.

Little Girl Magnolias (*M.* *liliflora* × *M.* *stellata*)

The Little Girl Magnolias are becoming very popular in greater Kansas City and 'Jane' and 'Ann' are commonly available at local garden centers. Sometimes they are just sold as "Little Girl" magnolia without a



Magnolia 'Eskimo.'

specific cultivar name. My personal favorite is 'Pinkie,' which is never available at local garden centers. They are appreciated for their later spring bloom, remonant summer bloom and tolerance to cold.

Magnolia 'Ann.' Located in the Powell Memorial Courtyard on the north side of the visitor center.

Magnolia 'Betty.' More than a decade old plants (12ft—3.6m) are located at the old Visitor Center in what now is the Daycare play area.

Magnolia 'Jane.' Located at the trolley stop of the Visitor Center and on the edge of the Perennial Garden.

Magnolia 'Pinkie.' Located at the trolley stop of the Visitor Center.

Magnolia 'Randy.' We have three more-than-a-decade-old plants in the Rock and Waterfall Garden.

Magnolia 'Susan.' Located in the Powell Memorial Courtyard on the north side of the visitor center.

***Magnolia* × *loebneri* (*M. kobus* × *M. stellata*) (Loebner Magnolias)**

Magnolia × *loebneri* 'Merrill.' This clone is very vigorous and pyramidal, and is doing well in our region and quite available at local garden centers. We have two small trees planted northeast of the Visitor Center.

Magnolia × *loebneri* 'Encore.' We have one small plant on the sheltered east side of the Visitor Center in "magnolia hell" where morning sun has ruined all others. The small plant is a show stopper with abundant bloom and excellent cold/frost tolerance.

Magnolia × *loebneri* 'Leonard Messel.' We highly recommend this cultivar for tolerance to cold. There are two small trees south and east of the Visitor Center. It has become readily available at local garden centers.

Magnolia loebneri 'Pink Delight.' This cultivar was donated to us by Mike Shade of the Botany Shop in Joplin, MO. It looks like a *M.* × *loebneri*. It is planted on the edge of the Perennial Garden and I missed its first blooms last spring.



Magnolia 'Black Beauty' (#204)

Brooklyn Magnolias and their back crosses
(*Magnolia* × *brooklynensis* (*M. liliiflora* × *M. acuminata*))

Magnolia × *brooklynensis* 'Black Beauty' (#204). (See photo.) This vigorous cultivar has been tightly pyramidal and produces abundant dark burgundy-purple flowers each spring. It is on the Dogwood Walk at the service road.

Magnolia × *brooklynensis* 'Evamaria.' We have a small plant east of the new fountain garden.

Magnolia × *brooklynensis* 'Hattie Carthan.' We like this plant but have been disappointed that its bloom often gets nipped by a late freeze unlike Black Beauty not that far away! We like the parchment paper yel-

low flowers with newly emerging lime green leaves. It has been quite vigorous and is located on the Dogwood Walk.

Magnolia 'Lois.' We have a plant that has some understock problems on the vc trolley stop. It bloomed this spring for the first time.

Magnolia × *brooklynensis* 'Woodsman.' We loved this vigorous plant and its unique blended flowers, then it died after its rootstock perished. We have a replacement growing between the Rock and Waterfall and Perennial Gardens.

Magnolia 'Yellow Bird.' We have a small plant northeast of the vc.

Other Yulania hybrids

Magnolia 'Butterflies.' This has been our most floriferous and vigorous hybrid magnolia (15ft—4.6m tall) and can be seen at the trolley stop at the Visitor Center with a newer tree in the Perennial Garden. It did take about six years to really set abundant bloom but has been spectacular ever since by squeaking by every year with peak bloom between freezes. We are pleased to see this cultivar become available at local garden centers (see photo).

Magnolia 'Elizabeth.' Look for this tree in the Powell Memorial courtyard on the north end of the Visitor Center. Its flowers have often been damaged by a late freeze at this location but neighboring trees are beginning to give it a bit of morning shelter. This cultivar is a more reli-



Magnolia 'Butterflies.'



Magnolia 'Gold Cup.'

able bloomer in sheltered gardens. It has become readily available at local garden centers.

Magnolia 'Gold Cup' (see photo). Look for an establishing tree at the trolley stop of the Visitor Center. We would call this "ivory goblet" when in bloom, as the flowers are a beautiful ivory with heavy substance and elegant goblet form. We also like the tropical look of this larger leaved cultivar.

Magnolia 'Golden Gift.' Look for this cultivar along the Dogwood Walk. It has been repeatedly attacked by squirrels stripping its

bark. We like its abundant yellow flowers even on a new plant and its small stature. One of the best!

Magnolia 'Golden Sun.' Look for this plant along the Dogwood Walk near the trolley stop. It bloomed this spring for the first time.

Magnolia 'Hot Flash.' This plant grows southeast of the Visitor Center. It was damaged by a collision with a catering truck last season!

Magnolia 'Ivory Chalice.' We have a small plant of this cultivar struggling northeast of the Visitor Center.

Magnolia 'Lemonade.' This plant is located northeast of the VC and has not yet bloomed.

Magnolia 'Limelight.' This new plant is located in the edge of the Perennial Garden and bloomed this spring for the first time.

Magnolia 'Maxine Merrill.' This was planted along the Dogwood Walk and established well last summer; it bloomed this spring for the first time.

Magnolia 'Sunsation.' This is one of our favorites located next to the VC trolley stop. The pinkish blush to the base of the yellow-toned flowers really makes them glow.



Magnolia 'March til Frost.'

Visitor Center. I really like this cultivar for its abundant spring bloom of rich, almost burgundy, with a light inside and its recurring flowers (see photo).

Magnolia 'Marilyn.' Look for this tree between the Dogwood Walk and the Visitor Center trolley stop. It has been very vigorous and established well.

Magnolia 'Orchid.' Look for this cultivar along the Visitor Center trolley stop.

Magnolia 'Royal Crown.' This has been one of our most vigorous magnolias (13 feet tall (3.9m)). It blooms very early and almost always its spring bloom is destroyed by frost *but* we feel its recurrent summer bloom of rich pink goblets are better than any other except our special

Magnolia 'Yellow Joy.' This magnolia is a sister to Butterflies; our plant is too new to bloom and is located on the edge of the Perennial Garden.

Magnolia '18-60.' This magnolia had wonderful yellow, tulip-shaped flowers late with the expanding foliage but it finally succumbed to bark damage from squirrels.

Magnolia 'Forrest's Pink.' We have been struggling with this cultivar and finally have a small establishing plant in the Rock and Waterfall Garden. We had one very nice plant next to the Visitor Center Trolley Stop succumb to root rot following a very wet spring season.

Magnolia 'March 'til Frost.' We have a small plant near the trolley stop at the

M. 'Rustica Rubra.' A fellow local Magnolia Society member lost his tree during the winter of 2000-1 when ours was unscathed.

Magnolia 'Daybreak.' We have two small trees: one northeast of the Visitor Center and one on the edge of the Perennial Garden. I feel no photo can do this plant justice and it needs to be seen to show off its subtle coral/warm overtones. It is a real show stopper when in bloom and doesn't bloom until early May for us.

Magnolia 'Pink Royalty.' The late freeze of May 2005 also killed this plant which was located in a sheltered, morning sun situation.

Magnolia 'Red Baron.' There is a small plant on the southeast side of the Perennial Garden.

Magnolia 'Toro.' There is a small plant on the southeast side of the Perennial Garden; it bloomed this spring for the first time.

We hope that you will stop in and visit Powell Gardens, smack dab in the center of the United States. We will continue to enhance our collections of magnolias as part of our mission to "inspire people to appreciate, beautify and conserve our natural environment by providing a peaceful setting with opportunities for learning and reflection." Our ultimate goal is to display magnolias integrated throughout our garden landscapes—we will have no magnolia garden. Powell Gardens wants to display magnolia varieties that are not only reliably hardy but those which flower more successfully in our often variable spring climate. We also want to display magnolias with overall ornamental attributes such as beautiful silhouette, showy winter buds, clean summer foliage and reliable fall color. Visitors are already inspired by seeing many of the species and newer cultivars and are learning how they can enhance the palate of plants for their home gardens.

