

Magnificent Magnolias

by Marcel Beauchamp

Every spring, around late April, about the same time the forsythias come into flower, the saucer magnolia at the corner of Concession and Craig in Russell opens its delicate-looking and satiny purplish-white blossoms and seduces passersby with its exotic beauty and intoxicating perfume. Around the corner on Castor just across from the kiddy pool, another magnolia, this one a larger, multi-trunked tree, also manages to amaze anyone having the good fortune to be in the vicinity with its dazzling display of wonderful white flowers.



Magnolia on Castor Street in Russell April 26, 2008

People always seem astonished that magnolias grow and flower in our northern climate. Many think of magnolias as southern belles. Well, they do quite well in the Ottawa area, except for the occasional spring when a late frost burns off the flowers and the show comes to an abrupt halt. But those springs when the show continues

unchallenged for several weeks makes the gamble of growing these beauties worthwhile. One of the reasons magnolias make such a terrific floral display is the emergence of flowers in such abundance, completely filling the canopy before the leaves emerge, looking like delicious cotton candy.



Saucer Magnolia

Magnolia x soulangeana

Magnolia x soulangeana, the saucer magnolia, is probably the best known and most widely planted of all magnolias; at least the one most people think of when they think of magnolias. Varying in flower colour from white to an intense purple, shape of flower from tulip, cup and saucer to goblets, weather permitting, they can be enjoyed for a few weeks, after which time the fallen tepals (magnolia flower petals are known as tepals) can still be enjoyed a few more days as they cover the ground beneath the plant. Of course, one mustn't forget the wonderful scent of magnolias as it wafts through the air on a gorgeous spring day.

The 'x' in *Magnolia x soulangeana* identifies it as a hybrid. It is a cross between *Magnolia denudata*, the Yulan magnolia from central China, and *Magnolia liliiflora*, another species from eastern and central China, and was made in 1820 by Etienne Soulange-Bodin, a cavalry officer in Napoleon's army. After the Napoleonic wars, he returned to his home in France and, sickened by the ravages of war, turned to his garden for solace. He wrote in a local gardening publication, "*It had doubtless been better for both parties to have*

stayed home and planted their cabbages". His initial cross flowered in 1827 and has since been repeated many times. This may have erroneously given rise to the belief that it takes seven years for a magnolia to flower after being planted. Magnolia cultivars, or clones, are exact replicas of the parent plant, which are already of flowering maturity, and once established and with the right conditions, may flower in a year or two. Seed grown magnolias may take up to twenty or more years to flower from seed, depending on their origins.

Once established, this broad spreading large shrub or small tree needs no special attention other than an occasional light pruning immediately after flowering. *Magnolia x soulangeana* has the reputation of being one of the easiest magnolias to cultivate, growing successfully in almost any soil type. Like all magnolias, attention to planting details will ensure a long and trouble free life (more on planting later in this article). Hardy to Canadian hardiness zone 5, and with some protection may be grown successfully in zone 4, this truly magnificent hybrid has undoubtedly stood the test of time as it remains to this day one of the most popular magnolias.

Some popular cultivars of *Magnolia x soulangeana* include 'Alba Superba', 'Alexandrina', 'Brozzoni', 'Burgundy' and 'San Jose'.

Star Magnolia

The Star Magnolia, *Magnolia stellata*, is another very popular magnolia widely available on the market today and is native to Japan. It forms a smaller plant than the saucer magnolia, usually shrub-like up to 12 to 15 feet high and as wide. Its flowers are smaller, more flatly open, white and sometimes tinged with pink. 'Waterlily', 'Centennial' and 'Royal Star' are three popular cultivars. Two 'Centennial' Star Magnolias were planted in MacDougall Park. They should perform quite well in the high shade of the white pines.



Magnolia stellata 'Centennial'

Kobushi Magnolia

Magnolia kobus, also a Japanese species, is not much grown in gardens today other than Arboretums and Botanic Gardens. Its flowers resemble those of *Magnolia stellata*, however, it grows into a much larger plant, reaching tree-like proportions upwards of 20 to 25 feet and as wide when open grown. It is also known for its hardiness (zone 4) which has been passed down to its progeny. The Kobushi Magnolia is closely related to the Star Magnolia and some botanists consider one a variety of the other.



Magnolia kobus

Castor Street Magnolia

I suspect the Magnolia tree on Castor across from the kiddy pool in Russell is likely a cultivar or hybrid of *kobus* simply because of its sheer size. The owner's father remembers purchasing it in Toronto and planting it in 1953. Its flowering habit, including its susceptibility to spring frosts, is consistent with *kobus*, its cultivars and early hybrids. The flowers have more tepals than the species thus giving them a much fuller appearance. 2008 was a good year for it since there were no spring frosts to stop the show.



Castor Street Magnolia

Loebner Hybrids

Magnolia x loebneri hybrids (*Magnolia kobus* crossed with *Magnolia stellata*) are known for their hardiness, extreme floriferousness, a rich scent, and remarkable tolerance to a wide range of soil types. They flower in dappled shade but are best in full sun and the flowers, once open, will tolerate some frost. They are also surprisingly wind tolerant for magnolias and range in size from shrubs to multi-stemmed small trees. Two Loebner hybrids are readily available in the trade.

- ‘Leonard Messel’, which forms a compact shrub-like plant up to 15 feet with an equal spread, with full, soft pink flowers that are quite frost resistant; especially noteworthy for this hybrid is the fact that flower colour is affected by spring temperatures: warmer spring temperatures will bring out a deeper shade of pink, whereas cooler temperatures will result in paler flowers;



'Leonard Messel'

- 'Merrill', an extremely vigorous clone which grows into a wide-spreading small tree about the size of a large crabapple, up to 25 feet with equal spread; it bears pure white flowers in great profusion.



'Merrill'

I purchased an unnamed magnolia two summers ago which I suspect is 'Merrill', judging by its growth habit and flowers; it's an extremely vigorous grower and flowered quite freely in early May the year after I purchased it.

Here's a photo of it:



Unknown Magnolia in my garden

The Eight Little Girls

In 1965, the U.S. National Arboretum in Washington D.C. introduced eight hybrids of *Magnolia liliiflora* and *Magnolia stellata*, which were named after secretaries who worked at the Arboretum or after wives and daughters of staff. These are affectionately known as the "Eight Little Girls". They flower a little later than the previously described magnolias, just as the leaves are opening, making them less of a target for late spring frosts and grow as multi-stemmed rounded or conical shrubs. The flowers range in colour from pinky white to deep purple with whitish pink inner tepals. They are generally available at many nurseries. Look for Ann, Betty, Judy, Randy, Ricki, Susan, Jane, and Pinkie.

Yellow Fever

The mere mention of yellow magnolias sends people into fits of 'ooh' and 'ah'. The yellows are a fairly recent introduction on the magnolia scene. The struggle to produce a true yellow-flowered magnolia marks the first time that an American species was used in magnolia breeding programs.

The story begins with the American species *Magnolia acuminata*, whose range is from southern Ontario to Florida and from Arkansas to Louisiana. The Cucumber Magnolia, as it is commonly called, varies greatly in size depending on its geographical locations; subspecies with different characteristics have been identified in different areas of its range. These differences make it a valuable asset in a breeding program. The species *acuminata* has smallish, rather insignificant yellowish-green to creamy-yellow flowers which are largely hidden by the foliage. Some specimens have been found with glaucous green (bluish tint) flowers. This could lead the magnolia breeding program into an entirely different direction as some clones have already been selected for their bluish-green flowers.



Magnolia acuminata

The range of *Magnolia acuminata* just barely extends into Canada, reaching into southern Ontario around the south shore of Lake Ontario and the north shore of Lake Erie, where it can attain heights of up to 70 feet and a trunk diameter of two feet. It reaches its greatest proportions, however, in the southern Appalachian mountains of the United States, easily attaining heights of 100 feet with trunk diameters up to 4 feet. The largest specimen on record is 125 feet tall with a spread of 60 feet and was found in the Great Smoky Mountains National Park in Tennessee.

Breeders homed in on the subspecies *subcordata* in their search for the elusive yellow magnolia because of its pale yellow to canary yellow flowers. Its maximum stature of 30 feet is a plus when trying to breed a plant suited to modern gardens. However, coming from Georgia and Alabama, it is less hardy than the species found in the northern part of its range. Nonetheless, we owe many of our modern day yellow magnolias to this subspecies.

The early crosses involved *acuminata* with *denudata*, a Chinese species with pinkish-white flowers, and were made in 1956 by the Brooklyn Botanic Gardens. 'Elizabeth' and 'Butterflies' came out of these early efforts. Second and third generations of backcrosses with *lilliflora* and *stellata* yielded many more yellow magnolias including 'Gold Star', 'Yellow Fever', 'Yellow Lantern', 'Sundance', 'Sunburst', and last but not least, 'Yellow Bird', which seems to be one of the more popular hybrids sold in nurseries today as a single trunk small tree.



'Yellow Bird'

I have two Yellow Birds in my garden. The first one is going into its fifth season and has been growing in leaps and bounds, essentially in morning sun with dappled shade for the remainder of the day. It has

retained its tree form with a single trunk with large, beautiful, rich, deep green foliage with an abundance of flowers just as the leaves are emerging. Its flowers don't appear to be exactly like those I've seen in pictures of 'Yellow Bird'. They are shaped more like 'Sunburst' flowers. It is possible that the plant was mislabelled at some point. It wouldn't be the first time this has happened. Regardless, it's still a beautiful plant which gives me lots of enjoyment. I have a second Yellow Bird which I planted two years ago in full sun on my front lawn. It didn't flower last year but that was expected as I simply wanted the plant to get well established during its first year. It will be interesting to see what this one yields. Obviously, ongoing observation and research will be needed to determine the identity of my mysterious Magnolia. In the meantime, I shall continue enjoying its wonderful displays.



My 'Mysterious' Magnolia

Cultivation of Magnolias

If you've gotten this far in the article, you must either,

- Already have a magnolia (or more) in your garden and would like to know more about them, or
- Are interested in trying to grow one (or some).

Since magnolias tend to be a little pricey, you want to make sure that you protect your investment and ensure the health of your plant so

you can enjoy it for many years. The good news is, once established, magnolias require very little care other than an occasional light pruning. They are rarely bothered by insects or diseases.

First and foremost, select your site carefully as magnolias do not care to be windswept. Any location with good soil that is somewhat sheltered from strong prevailing winds will guarantee a better chance for a successful flower show in the spring. Cold winter winds can wreak havoc on the delicate flower buds.

The Root of the Problem

Getting magnolias to that “once established” stage requires some coddling at planting time and during the first year or two. Magnolia roots are somewhat delicate and care must be taken at planting time not to damage them too much, otherwise rot could set in which can lead to a downward spiral in its health. Magnolias have fairly large fleshy roots. Moisture and nutrients are absorbed directly by the epidermal layer surrounding the roots. They are best planted balled and burlapped (B&B) or from containers. As is often the case, B&B plants are slipped into black plastic pots then filled with a compost/bark mixture to help keep the root ball moist.

The best planting time is spring, when the roots are active. Planting can also be done successfully in the fall, at which time the roots become active again. However, fall planting should be done four to six weeks before the ground freezes to allow sufficient time for the roots to get properly established. Mulching over the planting area will delay frost for some time and further encourage root development. In our area ground frosts can be expected sometime in early November, with light frost crusts forming and thawing alternately for a couple of weeks, depending on the weather. At some point, the weather turns colder and the frost stays in the ground. If we're lucky, from strictly a plant's perspective, we'll get an early snowfall which blankets and insulates the soil, thus preventing the frost from going too deep.

I have successfully planted a containerized Yellow Bird Magnolia on my front lawn in full sun, in early July. The secret is to keep it well watered until the roots start to grow again around late August to early September when temperatures start to cool down. At this time, the

plant may appear inactive judging by the lack of growth in the above ground parts, but below ground the roots are abuzz with activity, getting the plant ready to successfully make it through the winter.

Planting

Your goal when planting your magnolia is to minimize trauma and stress. This translates into as little damage as possible to the roots. Before beginning the whole planting process, make sure the root ball is well watered. Water it thoroughly until water runs out the drainage holes. You don't want to attempt planting when the root ball is dry. The soil will break apart more easily and the roots will be more brittle, having reduced moisture levels. This can lead to root breakage.

Before removing the plant from its pot, first prepare the planting hole. The hole should be at least twice the diameter of the root ball, leaving at least a foot or more of space between the root ball and the wall of the hole. The hole should NOT be dug any deeper than the depth of the root ball. Magnolias are fairly surface rooted and do not like being planted deeper than the level at which they were grown. If your soil is on the clay side, make sure you scarify the sides of the hole with a shovel to avoid creating a smooth wall as this would act as a barrier for the roots and prevent or slow their penetration into the surrounding soil. This could be a fatal mistake.

Remove the plant from its pot by holding it up and tapping gently on the edge. You may need a partner to help you with this. Do not be surprised if some soil falls from the root ball once it pops out, especially if it's a B&B within a pot. Some roots may be growing through the burlap and that's good.

If the plant is not B&B and has been growing in its pot too long, you could be facing some circling roots at the bottom of the root ball. Gently tease these out from the root ball. Making sure they are moist before doing this will minimize breakage, as they are quite brittle. Don't panic if the odd one breaks. You haven't signed your plant's death warrant. Generally, you won't have circling roots with B&B plants.

Prepare the soil you will use for backfilling by adding generous amounts of organic matter to it. This could include peat moss, compost, aged manure, or leaf mould. Bone meal may also be added. I don't believe in adding any kind of slow release chemical fertilizers to the mix. It's more important to create a welcoming mix by adding plenty of organic matter which will gradually break down and provide a slow source of nutrients. The importance of organic matter goes beyond just feeding the plant. It actually feeds the soil. It's conducive to creating a hospitable environment for beneficial soil micro-organisms and earthworms which contribute to developing a healthy soil structure to promote good root formation and penetration into the surrounding soil. Chemical fertilizers don't do that. Feed the soil and you feed the plant.

Set the plant in the middle of the hole, taking care not to set it too deep. With B&B plants, cut away and remove as much of the burlap and rope as possible, especially if it's nylon, taking care that the root ball doesn't crumble. If there's a wire cage around the root ball, cut away and remove as much of that as well. Begin slowly backfilling with the mix and gently firm it with your hands. Do not stomp on it with your feet. You don't want to damage the roots. Gradually fill the entire hole this way and water in thoroughly.

Mulch

I cannot overemphasize the importance of mulch for all newly planted trees, especially for magnolias. Mulch will moderate soil temperatures as well as soil moisture levels, preventing abrupt changes which could stress the plant. Organic mulches such as bark, compost, leaf mould, or mushroom compost gradually break down and provide needed nutrients. Earthworms come up at night and bring some of that organic matter down to lower levels and it gets incorporated into the soil. Organic matter, especially wood chips, encourages the formation of mycorrhizal fungi, a fungus which establishes a symbiotic relationship with the plant's roots. These fungi facilitate the absorption of moisture and nutrients into the roots. They do a much better job at this than the plant's own roots. In return, the plant provides the fungi with sugars and carbohydrates for growth.

This is extremely beneficial to the plant and keeps the soil “alive”. A couple of inches of mulch should do it, taking care not to put too much close to the trunk. Research has shown that mulched plants recover more quickly after being planted and establish stronger root systems. Organic matter also possesses natural anti-fungal properties which reduce the chance of roots being affected by pathogens and rotting. Obviously, using landscape fabric under the mulch will disrupt the whole dynamics of creating an effective ecosystem.

Mulch contributes to reducing transplant shock, trauma and stress. Replenish the mulch every year to ensure the plant’s optimal performance and avoid intense cultivation of the soil under the plant as this could damage roots.

Water, Water, Water

Again, I cannot stress enough the importance of watering your newly-planted magnolia regularly during the first year. If your soil has good drainage, it’s hard to overwater.

Drought creates stress. You must avoid this at all costs. Watering is particularly important when rainfall becomes scarce, especially during the height of the summer. The combination of the high heat and drought of summer can quickly kill a plant that’s struggling to establish itself. Water thoroughly and deeply. When we haven’t had rain for about a week, I set up my sprinkler and leave it on for a couple of hours to thoroughly soak the soil. Even my magnolia that’s been in the ground for five years gets irrigated during dry spells in summer.

A tree generally takes at least three years before fully establishing itself after being planted before resuming its normal growth. You should watch for signs of drought during this time and water accordingly. After three years, a tree’s roots begin venturing far enough to get the moisture it needs to survive and grow.

Conclusion

Hopefully I haven't discouraged you from trying to grow magnolias. Once you experience their beauty, you won't regret investing the extra cost and care for a lifetime of enjoyment. Oh, and watch for and enjoy those beautiful magnolias this spring.