



M. 'Rose Marie' avoids succumbing to a killing frost and is one of the latest blooming deciduous magnolia on the markets.

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Magnolia's many colors

A rainbow of flowering deciduous hybrids makes this tree a perennial favorite

By Tracy Ilene Miller

OUR ATTACHMENT TO THE GENUS *Magnolia* might possibly be embedded in our consciousness over millennia based on its ancient lineage. Researchers looking to trace the characteristics of the very first flower, existing 140 million years ago, found it resembles modern magnolias, with their distinct tepals and numerous stamens and carpels.

In Central Oregon, 44 million years ago, mammalian species of the moist, dense forest would have most certainly encountered *Magnolia*, according to researchers at John Day Fossil Beds.

The longevity of *Magnolia* has lent the genus significance to many cultures, where it is imbued with meanings ranging from romance to beauty, pride and enduring relationships.

It has also led to the staunch dedication to the genus and its attributes by researchers and breeders, including horticultural stars of the end of the last century and beginning of the 21st century. Those include August Kehr, Philip Savage Jr., Dennis Ledvina, Richard Figlar, Felix Jury and Mark Jury, breeders at

the Brooklyn Botanical Gardens and others.

While breeders worked to find better hybrids and define ideal growing conditions, debates over phylogeny and taxonomy paralleled those experiments with *Magnolia* crosses over decades.

It has been noted that before the turn of the century, a shift in breeding occurred when researchers reported on the number of complete sets of chromosomes of more than 300 species and cultivars. At that point, *Magnolia* became the sole genus in the subfamily Magnoliaceae, and additional reordering put once-named genera into sectional ranks of subgenus.

This allowed breeders to more definitively define the lineages of *Magnolia*-identified plants for greater reproductive compatibility of hybridization experiments.

This more-refined understanding is one factor leading to introductions of new deciduous magnolia hybrids. Because of their closer alignment in parentage, these new introductions exhibit better characteristics for such desired qualities as



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Forty-four million years ago, central Oregon was a hot, wet, semitropical place filled with a wide diversity of plants and animals, including *Magnolia*. Below left: creodont, the size of a modern panther, 5 *Macginicarpa* (sycamore), 6 *Orohippus* (early horse), 7 *Dioon* (cycad), 8 *Cornus* (flowering dogwood), 9 *Juglans* (walnut), 10 *Alseodiplazium* (fern), 11 *Alseodiplazium* (fern), 12 *Alseodiplazium* (fern), 13 *Ictalurus* cf. (freshwater catfishes), 14 *Telmatherium* (1.25m brontothere), 15 *Castanea* (chestnut), 16 *Magnolia* (magnolia tree), 17 *Hyrachyus* ('running rhino'), 18 *Alseodiplazium* (fern).

MURAL BY LARRY FELDER, COURTESY NATIONAL PARK SERVICE

cold hardiness, foliage persistence and vivid flower color, as well as smaller stature, precocious flowering (first flowers emerging before the emergence of leaves), late blooming and blooming on young plants.

These newer selections shine as additions to the list of enduring deciduous magnolia hybrids previously introduced, which remain best-sellers for their strong traits that answer modern needs and wants.

White-to-pink magnolias

Stephanie Mack, yard buyer at **Portland Nursery**, knows exactly when magnolias are in bloom because customers come in asking for them by name, especially saucer magnolias (*Magnolia × soulangeana*). “They are so spectacular and early,” she said.

Customers are also inspired to buy magnolias — which make up 10% of the nursery’s tree sales — after seeing them in well-crafted displays at the garden center. Mack said customers are typically satisfied with the deciduous varieties because almost all are fragrant, have no disease

problems in Oregon, are adapted to acidic soils, and are less brittle than evergreen magnolias.

Specific to Portland, customers request bigger trees, due to the city’s street tree requirement of a minimum 1.5-inch caliper and a larger maturity size, she said.

“That’s harder for me as a buyer.” If it were up to Mack, she’d recommend smaller-caliper trees for better availability and initial establishment of the trees after planting.

A quarter of the nursery’s sales of deciduous magnolias are for street trees, leaving the majority to cultivars best suited for small yards and condo or apartment dwellers.

The tropical-looking *Magnolia macrophylla* ssp. *ashei* (10–15 feet tall by 8–10 feet wide, zones 6–9), with its 2-foot-long leaves and big white, fragrant flowers that can reach 8 inches across, gets everyone excited at the nursery. “When they start to leaf out, the staff members go crazy about them,” Mack said.

A new introduction at **Heritage Seedlings & Liners Inc.** (Salem, Oregon)

was a serendipitous find. It was identified only after it was grown from mixed seeds from China, sold at a local school auction and then rediscovered as a standout — 15 years later, in the purchaser’s garden!

The qualities prompted the nursery to patent *Magnolia cylindrica* ‘MJK-MB1’ PP34917 (Marilyn’s Choice™, zones 5–9, 35–40 feet tall by 4 feet wide), which “has garnered widespread interest due to its tightly columnar form and its demonstrated flowering habit in only nine months from a bud in a number one pot,” co-owner Mark Krautmann explained. In addition to arriving to market in a modest-sized pot with 4–5 flower buds, ‘Marilyn’s Choice’ blooms late enough to avoid major frost events; maintains a tight branch structure for strength in ice storms; and shows major pest and disease resistance that in trials compared favorably with the popular *M. ‘Galaxy’*.

“It’s a plant that has a bright future,” Krautmann said, “a once-in-a-career find.”

One of Krautmann’s all-time favorite magnolias is *M. ‘Daybreak’* (zones 5–9, 20–30 feet tall by 15–20 feet wide), devel-



Legend: 1 *Cercidiphyllum* (tree), 2 *Ensete* (banana plant), 3 *Sabalites* (extinct fan palm), 4 *Patriofelis* (cat-like animal), 10 *Pinus* (pine tree), 11 not labeled in mural, 12 *Pristichampsus* sp. (3 m long crocodile), 18 *Lauraceae* (laurel tree), 19 *Cicadidae* on *Vitis* (cicada on grapevine), 20 *Meliosma* (aguacatillo).

oped by Dr. August Kehr, the renowned azalea and magnolia breeder. ‘Daybreak’ has purple-pink blooms with white interior and — a slightly floppy, less rigid flower shape that Krautmann calls “royal and approachable.”

“[‘Daybreak’] doesn’t have that billboard, in-your-face effect,” he added, noting it will bloom in three years with 8-inch flowers on a mature tree. ‘Daybreak’ is unusual for magnolias because of its upright form with blooms delayed six weeks later than *M. × soulangeana* and low susceptibility to frost.

Wholesale tree grower **J. Frank Schmidt & Son Co.** (Boring, Oregon) has added Spring Welcome® Lobner Magnolia (*Magnolia × loebneri* ‘Ruth’, zones 3–7, 15–20 feet tall and wide), which is easy to propagate and produces a saleable 3-gallon plant in 2–3 years, said Guy Meacham, product development manager. Developed and introduced by North Dakota State University, where a rigorous evaluation system yields hardy and reliable trees, Meacham said, Spring Welcome is a better cultivar than others

out there, with its bright white, 3–4-inch star-shaped flowers that bloom reliably to –35 F on a tight, well-maintained, upright ovate form with no central leader and disease-free foliage.

Meacham said the nursery currently sells more of *M. stellata* ‘Royal Star’ (star magnolia), but “Spring Welcome still needs to be discovered.”

For its outstanding form, Nicholas Staddon, plantsman and company spokesman with **Everde Growers**, a wholesale grower with 15 farms in Oregon, California, Florida and Texas, recommends the hybrid *M. ‘Athene’* (*M. ‘Mark Jury’ × M. soulangeana ‘Lennei Alba’*, zones 7–9, 13 feet tall by 10 feet wide). ‘Athene’ is a vigorous, upright, medium-size, vase-shaped tree that blooms at three years with fragrant cup-and-saucer white tepals showing a distinct violet-pink base.

“It may be as perfect a magnolia as you get to see,” Staddon said. “The form of the flower has great substance, with big petals that are interwoven and support each other.”

Nonetheless, Alexandrina



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M. 'Sunsation' has a pinkish-red base on the inside of the flower against a strong yellow.

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Black Tulip™ has dramatic, fragrant, deep purple goblet-shaped blooms.

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hybrid saucer magnolia (*Magnolia* × *soulangeana* 'Alexandrina', zones 5–9, 20–25 feet tall and wide) is Staddon's first love in magnolias. A smaller, shrubby or rounded tree that dates back to 1831 and is still widely popular, 'Alexandrina' bears fragrant 8-inch goblet-shaped blooms, white with a purplish base, that herald the start of spring, Staddon said, and fall too, as the leaves turn shades of yellow in colder weather before dropping.

Black-to-red magnolias

Black Tulip™ (*Magnolia* × *soulangeana* 'Jurmag1' PPAF, zones 5–9, 15–20 feet tall by 6–10 feet wide) is one of the most heralded and successful magnolias thanks to its dramatic, fragrant, deep purple goblet-shaped blooms. The medium-sized tree is the first and most commercially successful of the Mark Jury hybrids.

Mark Jury and his father, Felix Jury, have both been recognized with a Royal Horticultural Society (RHS) Veitch Memorial Medal — Mark in 2023, and Felix in 1992 — for their contributions to horticulture. The RHS medal is only one of the many awards, accolades and recognitions heaped on the Jury magnolias, now sold through Anthony Tesselar Plants (Silvan, Victoria, Australia).

'Black Tulip' is the best-selling magnolia at Heritage Seedlings, and Mack at Portland Nursery

named it as a customer favorite in addition to the fragrant and large-flowering (zones 5–9, 10–15 feet tall and wide).

“Any magnolia that has a deep flower color attracts customers,” Mack explained. ‘Vulcan’ magnolia flowers emerge on bare branches, reach 10 inches and are a solid deep magenta, with no white.

A Felix Jury hybrid from the 1970s, “‘Vulcan’ was a breakthrough, getting red tones into larger flower forms with solid color through the whole bloom,” said Abbie Jury, Mark’s wife, who has assisted and documented her husband’s plant breeding work. “It paved the way for pretty much all the following generations of red magnolias.”

Mack is also excited about the newer ‘Genie’ (*M. soulangeana* × *liliflora* ‘Genie’ PP20748, zones 4–9, 5–6 feet wide by 10–13 feet tall), bred by >>



M. macrophylla ssp. *ashei* is a less known but striking dwarf suspecies of *M. acuminata*.

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Yellow-flowered magnolias are an unexpected color. They're among the most requested from Heritage Seedlings, including 'Yellow Bird'.

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Vance Hooper in New Zealand. 'Genie' has the big, wide-petaled flower show of *M. soulangeana* in a compact, columnar size. Plus, from a sales perspective, because 'Genie' blooms at a younger age, it almost always is delivered with flower buds, which attracts customers.

Burgundy Star™ (*Magnolia* × 'JURmag4' PP20346, zones 5–9, 10–12 feet tall by 3–4 feet wide) is another Mark Jury hybrid with a breakthrough color for smaller gardens, with its narrow, columnar form. The fragrant flowers are large, star-shaped and red, making a distinctive red column when in bloom, Abbie Jury said.

Yellow magnolias

Of the top eight sellers at Heritage Seedlings, four are yellow magnolias. Two are long-established: *M.* 'Butterflies' (zones 4–9, 15–20 feet tall × 10–15 feet wide), bred by Philip Savage, is one of the earliest-blooming yellow varieties, and *M.* × *brooklynensis* 'Yellow Bird' (zones 4–8,

20–40 feet tall × 10–15 feet wide).

The other two are *M.* 'Sunsation' (zones 4–9, 20 feet tall × 10 feet wide), bred by August Kehr, with a pinkish-red base on the inside of the flower against a strong yellow, and *M.* 'Judy Zuk' (zones 5–9, 20–28 feet tall × 6–8 feet wide), a somewhat columnar tree, released by the Brooklyn Botanical Garden (BBG) in 2007. 'Judy Zuk' has 7–8-inch tulip-shaped, fragrant blooms in deep yellow with tinges of pink.

BBG has the distinction of introducing yellow magnolias to the horticulture world after crossing the cold-hardy U.S. native *M. acuminata* (cucumbertree) with *M. denudata* (Yulan magnolia), native to China, resulting in Elizabeth hybrid cucumbertree magnolia, patented in 1977. 'Elizabeth' is still a popular magnolia, as are yellow hybrids in general because of their late-blooming habit. It was the work at BBG, starting in the 1950s, and by Kehr that extended the yellow hybrid options internationally, Abbie Jury said.

Although *M. acuminata* is a native species, Heritage Seedlings stopped growing it because seed is hard to obtain, cuttings are difficult, and tissue culture is not an option. Instead, "we offer the less well-known but striking native species, *M. macrophylla*, and its dwarf shrubby subspecies, *M. macrophylla* ssp. *ashei*," Krautmann said.

In addition, Krautmann singled out Honey Tulip™ (*Magnolia* 'JURmag5', zones 5–9, 10–13 feet tall by 10 feet wide), another Mark Jury introduction. "'Honey Tulip' is for the ages, a rising star," he said. It has the same 6-inch goblet-shaped flower form as 'Black Tulip', with a softer yellow that is a "unique color" and more pastel than some of the other yellows.

'Honey Tulip' also distinguishes itself, Abbie Jury noted, by flowering on bare wood, unlike most yellow hybrids, which flower with their foliage.

"The yellow-flowered magnolias are really pretty and interesting, an





Felix[®] Magnolia produce a very large bloom with rich color on the outside and the inside of the tepals. The blooms can reach 12 inches wide and are fragrant, bright pink, prolific and early on bare branches.

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M. 'Butterflies', bred by Philip Savage, is one of the earliest-blooming yellow varieties.

PHOTO COURTESY
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Magnolia's many colors

unexpected flower color,” Mack said. “*M. ‘Butterflies’* tends to hold its flower color really well; it doesn’t fade quickly. Customers ask for it by name, as well as ‘Yellow Bird’ and ‘Sunburst,’” she added.

Lavender-to-pink

Over the decades, magnolia breeders have concertedly worked on later blooming of the buds.

M. ‘Rose Marie’ (zones 5–8, 10–12 feet tall by 8 feet wide), a cross between *M. ‘Pink Surprise’* × *M. ‘Daybreak’* was bred in Green Bay, Wisconsin, by Dennis Ledvina. This hybrid avoids succumbing to a killing frost and is the latest blooming deciduous magnolia on the market, Staddon said. “When every other magnolia has finished blooming, ‘Rose Marie’ is just starting to bud up, before holding center stage.” Adding to its appeal is its

large 8-inch fragrant blooms, lasting for up to six weeks on a compact tree/shrub.

J. Frank Schmidt was looking to add a magnolia that could be used as a small street tree, with a central leader and a good branch structure. In 2016, after several years of trialing, the grower landed on Mercury® Magnolia (*Magnolia ‘NCMX1’* PP 29218, zones 5–8, 25 feet tall by 15 feet wide). It was developed at North Carolina State University, where Thomas Ranney has been at the forefront of interspecific magnolia breeding, and jointly introduced with J. Frank Schmidt.

Mercury® Magnolia blooms 3–4 weeks later than most magnolias, a significant benefit for cold areas of the country where blooms are often lost to frost. It bears very large lavender-pink flowers and emerges in spring with bronzy new growth that turns dark green and stays free of

foliar diseases.

The only downside to ‘Mercury’, Meacham said, is the more challenging propagation using only budding or grafting. Nonetheless, it’s a worthwhile addition that tends to sell out at J. Frank Schmidt.

M. ‘Galaxy’ (zones 5–9, 20–30 feet tall by 10–15 feet wide) was a U.S. National Arboretum introduction more than 30 years ago and is still a popular plant thanks to its narrow, upright form and masses of fragrant dark red-purple flowers with a lighter interior on bare branches.

“It’s the best on the market because it has a strong central leader, plus the flower color is great,” Staddon said.

With Felix® Magnolia (*Magnolia* × ‘JURmag2’ PPAF, zones 5–9, 10–12 feet tall by 3–4 feet wide), Mark Jury achieved a personal goal, and a goal of his >>

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father's, of a very large cup-and-saucer bloom with rich color on the outside and the inside of the tepals, Abbie Jury said. Although officially noted at 12 inches wide, Staddon said he's seen the blooms reach 18 inches, coming in fragrant, bright pink, prolific and early on bare branches and a slow-growing plant.

The future of magnolias

Although it can take 10 years or more for a plant to be selected for trialing, and then trialed and released, "The best are yet to come," Staddon said. At the Jury nursery, three new varieties are in production for release — including a new red, Abbie Jury said.


But as breeders look to the future, it's important to take into consideration climate change and habitat loss, Krautmann said. Desirable characteristics will include increased tolerance to salt, drier, higher pH and warmer soil conditions, which will require breeders to focus not only on cultivar creation but rootstock selection as well.

"*Magnolia biondii* may offer considerable advantage over *Magnolia kobus* in this regard, and we will offer most of our selections on this new rootstock in order to extend the possible market range much farther west, including the mountain states and the American Southwest," Krautmann said.

Overall, a common refrain among those interviewed for this article was that, even if the market can support many more new selections, only those that deliver value should be pursued. New magnolia varieties must offer improvements that extend climate adaptation, such as drought tolerance, which for the most part deciduous magnolias are not.

They can take the heat, Mack said, but they need summer water. ☺

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