Effortless Beauty

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Grounds Maintenance Magazine

A key to growing low-maintenance trees is performing the critical preplanting work of assessing the site's limitations and selecting plant material accordingly. Matching a tree species' strengths and tolerances to the site conditions, especially on sites with extreme conditions, can mean the difference between the plants' languishing and flourishing. While some species can adapt to a variety of growing conditions, it often is necessary to search out a "specialist" to fill the position when extreme growing conditions or multiple plant-stress factors exist. This especially is true if you expect strong branch patterns and aesthetic appeal, in addition to mere survival.

Some trees are generally adaptable, while others specialize in some extreme condition, such as high or low pH or soil moisture. In many instances, breeders select cultivars for specific combinations of traits, often aesthetic and tolerance to stresses. Because of their superior performance, these cultivars generally are worth the slight additional cost and effort to locate them.

Trees may possess other qualities, independent of their suitability for a specific site, which qualify them as low-maintenance species. Five criteria dictate, to a large extent, the level of maintenance you'll need to perform to produce a healthy, attractive specimen over the course of many years.

1. Most importantly, the tree should be free of disease or insect pests that can endanger or disfigure the tree if you leave them untreated.

2. The tree must not require annual pruning such as the removal of water- or basal-sprouts to maintain the desired form.

3. It should not produce excessive fruits. Recognizing that trees, like most plants, require flowering and fruiting for perpetuation of their kind, we must accept some litter. However, excessive litter is offensive and may increase maintenance costs. Thus, a list of low-maintenance trees should only include species with which this "problem" is minimal.

4. The tree should be strong-wooded and have strong branching patterns so that it does not require cabling or substantial pruning to remain solid even when mature.

5. Lastly, it should tolerate climatic conditions sufficiently that it does not depend on neighboring vegetation or structures to provide acceptable growing conditions, such as wind protection, shade or any other microenvironment.

Every recommended-tree list should apply to a specific geographic region and its general climatic and soil conditions. In this case, my recommendations apply to the North Central states. In this region, erratic rainfall and alkaline soils combine with cold winters and hot summers to make life difficult for woody plants. Wherever you're located, the efforts you make (proper planting and care through the tree's establishment period) to moderate the challenging conditions existing on the site will reward you with healthy young trees that require minimal long-term maintenance.

Below are some excellent tree species that fit the criteria of "low maintenance" and possess excellent ornamental value as well. The table on page 17 summarizes characteristics of these species.

Minimum-maintenance tree species * The three-flowered maple is an excellent choice if you are looking for a smaller tree with outstanding fall color and tolerance of drier sites. Its rounded canopy ultimately reaches to 30 feet with equal spread. Its leaves reliably turn orange, often with a blush of red or maroon. In the upper Midwest, this Manchurian species outperforms its close relative, the lacebark maple (Acer griseum), which originated in central China. The three-flowered maple is hardier (to USDA Zone 4) and tolerates heavier and slightly more alkaline soil than its kin. Another common name for this species, shaggy-bark maple, describes yet another of its attractions: The grayish-tan bark exfoliates on branches 3 years old or older.

This species has been difficult to find in the trade. Its scarcity is due, in part, to the difficulties of propagating it. As domestic seed orchards begin to bear, this problem should ease. However, its slower growth rate relative to the more common maples and ashes will continue to make it somewhat more expensive to produce. Although mass plantings of this species may not be feasible, its many strengths and charms will undoubtedly earn it a place in many locations as it becomes better known.

* The Freeman maple fills a key role at the other end of the moisture gradient. The hybrid between the red and silver maple is one of the best choices for sites that periodically flood or drain poorly. The Freeman maple is a good example of interspecific h ybrids that exhibit the complementary strengths of their parents. Tolerance of flooding and alkaline soil are attributes contributed by silver maple. The red-maple component improves fall color and moderates the rank growth of limbs and roots usually associated with silver maple.

A number of selected cultivars are dioecious (individual trees are male or female, but not both--a red-maple trait), thus allowing for the selection of seedless, male clones. Consistently brilliant fall color has been the primary selection criterion for most cultivars, but they also differ in growth habit.

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American hornbeam or musclewood presents an option for providing brilliant fall color on a smaller scale. It occurs naturally as an understory species, rarely exceeding 30 feet in height. It often is broader than tall and forms multiple trunks, playing up its beautiful, smooth bark. The tight-fitting bark in conjunction with fluted or corded branches are evocative of well-muscled human limbs, hence the common name of musclewood. Although tolerant of shade, the canopy does not grow as dense nor does the fall color develop as fully as when it grows in full sun. The key to keeping this species healthy and low-maintenance is to place it where it receives sufficient moisture.

Regardless of whether it develops fall color, this species' summer character is reason enough to use it. Its growth habit is refined, and its fine-textured foliage is interspersed with pendulous clusters of fruit. These 2- to 4-inch-long "Chinese lanterns" also change color with the seasons and may persist after leaf drop. The amount of flowering and seedset varies considerably from year to year.

* Cornelian cherry dogwood is another smallish, often multiple-trunked tree deserving greater use. It is quite versatile, growing in a variety of soil types and pH levels, and in full sun or partial shade. Its long-lasting clusters of cheerful yellow flowers *(see photo, above left)* are welcome in early spring when they appear with or even before the earliest forsythias. The leaves are a glossy, dark green that combine beautifully with the bright-red fruit, which ripen in July. The bark is not quite as attractive as the closely related (and less-available) Japanese Cornelian cherry dogwood (*Cornus officinalis*), but the tastier fruits and less-congested branching pattern compensate for this. By choosing cultivars selected for their tree-like tendencies and properly pruning young trees, your specimens will become delightful small trees rather than large shrubs.

* The Turkish treehazel has experienced a rise in popularity lately, but designers often still ignore it in many situations where it would be an asset. This low-growing member of the birch family is tolerant of drought, heavy soils, extremes in temperatures and a broad range of soil pH. Its horizontal branching and tough wood make it resistant to wind and ice damage. Its ornamental features include its stately pyramidal shape, coarsely furrowed bark and the early spring display of its pendulous, yellow, male catkins. In the more northerly portions of its range, low temperatures may kill the flowers--even though its vegetative portions are completely hardy--eliminating any catkin display or nut production.

Hazels do not set seed if self-pollinated and rarely do so with pollen from a sibling. Thus, unless you plant unrelated individuals together, they will produce few of their tasty nuts. However, you can exploit this trait if you prefer to avoid dealing with the interesting, but spiny, nut clusters.

Unlike many nut trees, this species doesn't form an extensive tap root and transplants relatively easily if you provide it with supplemental water during its first couple of years of establishment. Difficulties in propagation result in lower availability and higher cost. Its durability and elegant presence, however, make it well worth the effort to acquire and establish.

* Ironwood or American hophornbeam, another member of the birch family, is in many ways a smaller version of the Turkish treehazel. Although it doesn't take heavy soils quite as well as the treehazel, ironwood tolerates drought, wind, ice and temperature extremes. It grows slowly, starting out with a pyramidal form, but fills out to become more round ed with maturity. The bark is fine textured, peeling off in thin vertical strips.

Its flowers and fruits are quite different from the Turkish treehazel, however. The male catkins are clustered in groups of three at the branch tips instead of being distributed individually. The nutlets are small and borne in an elongated cluster, each encased in a papery pouch. Hairs that can irritate the skin cover these fruit clusters.

Another characteristic of note is the observation that deer browse on ironwood casually but do not prefer it as a forage. In areas where large deer populations threaten unprotected plantings, this feature should prompt landscapers to take a closer look at this species.

* Callery pear possess several strengths that make it valuable in tough urban settings. 'Bradford' callery pear has been planted widely, and the cultivar name became synonymous with the species to many people. When many 'Bradford' pears reached maturity and began to break apart due to poor branching structure, the entire species got a bad name. However, breeders have selected cultivars of callery pear with improved branching structure as well as better cold hardiness (another weakness of 'Bradford' pears).

The species tolerates a wide range of soil conditions including drought and poorly drained, low-oxygen conditions. In addition, its flower display, glossy foliage, breathtaking fall color and uniform growth habit give it ornamental value in all seasons. The problems of thorniness, fireblight susceptibility and fruit litter--serious in some other pear species--are minimal in callery pear but vary with the cultivar. Cultivars are available with another desirable trait for planting sites of limited size: a narrowly upright growth habit (see photo, page 14, middle).

Be aware when choosing a cultivar that some selections assume their fall color earlier than others. This is especially important for northern sites where frost can occur before fall color has developed on the late cultivars. If you intend to use callery pear in the North, be sure to choose a cultivar that colors relatively early in the fall.

* My last selection is 'China Peking lilac (Syringa pekinensis 'Morton' or 'Watertower'). Besides meeting low maintenance criteria, this species is a prime example of a tree with highly ornamental bark. Its interesting bark color ant texture increase its attractiveness year round but are

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especially nice during the Midwest's long winters. The bark starts out with a mahogany color that appears to be polished smooth, sprinkled with corky, beige lenticels. It adds greater interest with age when it begins to peel horizontally (see photo, page 17), similar to paper birch. Another ornamental feature is the large clusters of cream-colored, lightly fragrant flowers that bloom in June (in Northern areas). The species contains considerable variation in bark character, but breeders have selected 'China Snow' for its consistently ornamental bark.

No one has yet determined the northern limit of this recently introduced cultivar. Though the species is generally less winter-hardy than the closely related Japanese tree lilac (Syringa reticulata), certain seed sources are hardy at the Minnesota Landscape Arboretum. In addition, data from the Morton Arboretum indicate that it is more drought-tolerant than its Japanese relative. Although perhaps not appropriate for the toughest of sites, this selection will add summer bloom and year-round interest to a well-drained sunny site with minimal maintenance.

(Editor's Note: Dr. Susan Wiegrefe is a research tree breeder for the Morton Arboretum, Lisle Il)

HOST SUPERINTENDENT BOB DISTEL tees off on No. 3 at Wayzata Country Club during the MGCSA Championship on August 20.

BLASTING OUT OF BUNKERS was a common occurence at the MGCSA Championship. Pictured above is Scott Weltzin, CGCS, Pheasant Acres Golf Club. Pictured below is Jay Monson of North Star Turf.