

What Trees Will Be Providing Canopy For Minnesotans In 2050?

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What is known is that many of the trees that have dominated landscapes in Minnesota in the past are now showing signs of being “long in the tooth.” Many of the landscape maples seem are looking worse by the year, and even shade stalwarts like green ash and bur oaks are struggling in many sites.

What is not known for certain is which trees, native or introduced, will be provided the best shade and interest in 2050. Why specify 2050? Because in Minnesota, it takes approximately 30-40 years for a shade tree to reach the size where it’s actually contributing to the landscape. There are some “best guesses,” though, based on observing trees that are doing well in situations and climates that will probably be typical for Minnesota, at least in the southern half of Minnesota, when that 30 years comes up.

At the University of Minnesota’s Urban Forestry Outreach Research and Extension lab and nursery, we are constantly planting new species and observing them for their site credentials, trying to come up with our best guesses for what should be sticking around and looking good for the future. We evaluate trees not only for their looks, but for structural integrity, reasonable maintenance requirements, value as shade providers, and site suitability. Today’s short tour of 16 tree sites will feature some newer species as well as those more familiar to you. At each stop, we will point out the best features of each tree, discuss some of their limitations, and make some recommendations for where they would best be used in our current and future landscapes.

The Trees

1. Amur maackia (*Maackia amurensis*). A smaller tree for the landscape and a legume, so it will grow in some of the most nutrient-poor soils thrown at it. Very cold hardy and easy to grow.
2. Silver maple ‘Northline’ (*Acer saccharinum*). Yes, we recommend a silver maple, but a very specific silver maple. ‘Northline’ was valued for its more compact habit than the species and for its solid structure. Unfortunately, ‘Northline’ is no longer available but its twin ‘Silver Queen’ is.
3. Japanese tree lilac (*Syringa reticulata*). A smaller tree, not necessarily considered a shade tree, but one of the very few, deicing salt tolerant trees grown in Minnesota. We’ll talk about the variety ‘Snowdance,’ and the other tree lilac, *S. pekinensis* ‘Beijing Gold.’
4. Eastern cottonwood (*Populus deltoides*), male specimen. If you like eagles, you should plant this Midwestern giant where space allows, but stick with the males to avoid the “cotton.”
5. Black locust (*Robinia pseudoacacia*). Nope, we’re not recommending it. Despite the fact that it’s built to survive climate change, it’s pretty invasive. The variety ‘Purple Robe’ appears to be less of a problem.
6. Ginkgo (*Ginkgo biloba*). Built to survive the past and future. A medium to large shade tree that survives just about any site. Only plant males.

7. Ohio buckeye (*Aesculus glabra*). Okay, get over the football dynasty issue, this is another great tree that survives about as much deicing salt that can be thrown at it. Don't eat the nuts.
8. American basswood (*Tilia americana*). Basswoods (aka lindens) have been declining in recent years, but they still have their places as large shade trees that do well in very alkaline soils. Just make sure their trunks don't get wounded.
9. American basswood, variety 'Boulevard.' A more upright basswood that makes a more manageable street tree.
10. Kentucky coffeetree (*Gymnocladus dioica*). Look across the street for this one. It's just to prove that once the tree gets through its young, ugly-duckling phase, it becomes a great, large (50 feet plus) tree for Minnesota...and it's native to Minnesota...it's a prairie riparian and floodplain tree, built for a hotter and drier Minnesota.
11. Katsura tree (*Cercidiphyllum japonicum*). A smaller to medium-sized tree that has been grown in the United States for over a century. It does require a moist site or regular watering, but it is relatively pest/problem-free beyond that.
12. White fir (*Abies concolor*). A better bluish-colored conifer than the Colorado blue spruce. Fewer disease problems and more tolerant of drier soils.
13. Freeman maples (*Acer saccharinum x rubrum*). The freeman maple collection represents the most popular maples planted in Minnesota. However, they can be maintenance nightmares if not cultivated carefully early on.
14. Three elms (*Ulmus* species): 'Discovery' (*U. davidiana*), 'Pioneer' (*U. x 'Pioneer*), and American elm (*U. americana*), from left to right. 'Discovery,' smaller, DED (Dutch elm disease) resistant and the most cold hardy; 'Pioneer,' a larger, more upright, DED resistant hybrid; American elm, the quintessential street tree, but very susceptible to DED.
15. Eastern redbud (*Cercis canadensis*), Minnesota strain. A perfectly cold-hardy version (zone 4) of this small, beautiful, understory tree.
16. Amur corktree (*Phellodendron amurense*) male tree. Although this tree is listed as invasive, it's only the female version. One of the most site tolerant landscape trees there is with very few problems other than the fact it needs lots of early attention to develop a strong architecture.