

MARBLEHEAD REPORTER

How to plant a tree

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Trees are under assault. The world has already lost nearly half its trees since humans first started cutting them down. Although New England forests have been regenerating, crucial rain forests have been decimated over the past 100 years to open land for agriculture.

Trees are also falling in Marblehead. Gas leaks kill them, and homeowners call in the chainsaws to prevent costly property damage or to preserve that quintessential harbor view. Storms topple them.

Scientists say that our recent, more frequent and severe storms are caused by climate change. And ironically, the best way to protect our trees from this type of damage is to plant more of them. Forests extract and store carbon dioxide from the atmosphere, helping to mitigate climate change. They also reduce pollution, stormwater runoff and flooding. They contribute economically by boosting property values and allowing energy savings in nearby buildings. And trees increase people's feelings of well-being, while minimizing noise and reducing crime.

Governments, businesses and citizens realize these benefits and are getting behind tree planting. One prominent example is the Trillion Tree Challenge, an effort to plant one trillion trees around the world by 2030, endorsed by this year's World Economic Forum in Davos, Switzerland.

Business person Marc Benioff and conservationist Jane Goodall writing in Time Magazine in August supporting this effort, say it could capture an estimated 200 gigatons of carbon over the coming decades, an amount equal to two-thirds of the pollution produced since the Industrial Revolution. "Planting one trillion trees won't be easy," they say, "but each one of us can make a difference in this fight. We can plant trees in backyards and neighborhoods or donate to one of the many programs that protect forests and woodlands around the world."

But we will do more harm than good if we don't plant the right tree in the right place, say critics. So, how best to plant a tree in Marblehead?

UMass Amherst's tree-planting guide, "Planting for Resilience: Selecting Urban Trees in Massachusetts," is an excellent resource (<https://tinyurl.com/y67aaqhp>). What UMass refers to as the "urban forest" includes trees on streets, in public parks and on private landscapes in both urban and suburban areas. These places are not the easiest places for trees to survive. They have more impervious surfaces than rural areas, inhibiting root growth and limiting water infiltration. Car and foot traffic compact urban soils; de-icing salt raises soil PH. Higher temperatures and pollution levels in these areas also contribute to unfavorable growing conditions.

To ensure tree-planting success, the guide emphasizes the importance of planting native species, which better support native wildlife and do not become invasive or reduce biodiversity. UMass recommends the 10-20-30 guideline for ensuring the ideal level of biodiversity: less than 10% of trees should be of the same species, less than 20% should be from the same genus and less than 30% should be from the same family. To abide by this rule, consider which trees may be already overplanted in our community.

The guide includes a Site Assessment to evaluate such factors as daily sun exposure and water availability before choosing which tree to plant. And its "Tree Planting 101" leads readers through the 10 steps to properly plant a tree, including finding the trunk flare, determining the size of the hole (two to three times as wide as the root ball), watering and mulching (three inches away from the trunk).

The guide then goes on to profile 78 tree species, listed alphabetically by Latin name from *Abies concolor* (White Fir) to *Zelkova serrata* (Japanese Zelkova).

As the COVID-19 pandemic drags on, Marbleheaders are finding solace walking among the trees in our preserved open spaces, from Forest River and Wyman Woods to Steer Swamp and Gerry Island. The town has been conserving open space for public use since first setting aside Seaside Park in 1895. We need to continue preserving our greenspace, with such tree planting efforts as those on Atlantic Avenue and the replacement of trees lost in the Abbot Hall renovation.

Wangari Maathai, Kenyan founder of one of the original tree-planting initiatives, famously said, "It's the little things citizens do. That's what will make the difference. My little thing is planting trees." Maathai won the 2004 Nobel Peace Prize for her "contribution to sustainable development, democracy and peace." She was the first African woman, and the first environmentalist, to win the prize.

Think what we can do if each of us plants a tree.

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