























































# Resilient Trees for Yards

SHADE TREES / LARGE STATURE TREES		Physical Characteristics			Growing Conditions						Habitat Values		Aesthetic Values	Suitable locations in yards				
Common name	Botanical name	North American Native	Average height x spread (feet)	Growth rate	Light exposure	Drought tolerant	Salt tolerant	Air pollution tolerant	Wet soil tolerant	Climate change adaptive	# of moth & butterfly species hosted	Provides food or other wildlife values	Provides showy flowers or fall foliage	Sites w overhead wires	Sites w/ limited canopy area	Sites with limited rooting area	Sites with regularly wet soils	Sites with no constraints
Birch, Black (Sweet birch)	<i>Betula lenta</i>	yes	50x40	med	☀		●		●		393	  	●					●
Birch, River	<i>Betula nigra</i> 'Heritage', 'Select' or 'Little King'	yes	40x35	fast	☀☀	●			●		393	  					●	●
Birch, Yellow	<i>Betula alleghaniensis</i>	yes	70x45	slow	☀☀	●			●		393	  					●	●
Elm, American	<i>Ulmus americana</i> 'Princeton'	yes	80x70	fast	☀	●	●		●		213	  				●		●
Ginkgo	<i>Ginkgo biloba</i> 'Autumn Gold'	no	50x30	med	☀		●	●	●	●	0		●		●	●		●
Hackberry	<i>Celtis occidentalis</i>	yes	60x50	med	☀☀	●		●	●	●	37		● 					●
Honeylocust	<i>Gleditsia triacanthos</i> 'Shademaster'	yes	50x40	fast	☀	●	●	●	●	●	34						●	●
Linden, American (Basswood)	<i>Tilia americana</i>	yes	70x40	med	☀☀	●				●	151	 						●
Linden, American	<i>Tilia americana</i> 'Redmond'	yes	40x20	med	☀☀	●				●	151	 		●				●
London planetree	<i>Platanus x acerifolia</i> 'Bloodgood'	cross	70x50	fast	☀			●		●		  						●
Maple, Freeman	<i>Acer rubrum x freemanii</i> 'Autumn Blaze®'	yes	60x40	fast	☀☀	●				●	271		● 				●	●
Maple, Red	<i>Acer rubrum</i> 'Red Sunset' and 'October Glory'	yes	40x40	fast	☀☀	●			●		271						●	●
Maple, Sugar	<i>Acer saccharum</i> 'Green Mountain' and 'Flashfire'	yes	45x45	fast	☀						271	  	●					●
Oak, Chestnut	<i>Quercus montana</i>	yes	65x65	slow	☀	●					462	 	●					●
Oak, Pin	<i>Quercus palustris</i>	yes	65x35	med	☀				●		462	 	●					●
Oak, Red	<i>Quercus rubra</i>	yes	70x60	med	☀	●	●	●		●	462	 	●					●
Oak, Scarlet	<i>Quercus coccinea</i>	yes	70x45	med	☀						462	 	●					●
Oak, Swamp White	<i>Quercus bicolor</i> 'American Dream'	yes	55x50	med	☀	●	●				462	 					●	●
Oak, White	<i>Quercus alba</i>	yes	65x65	slow	☀	●				●	462	 	●					●
Sweetgum	<i>Liquidambar styraciflua</i>	yes	60x40	med	☀	●			●	●	28	 	●					●
Sycamore, American	<i>Platanus occidentalis</i>	yes	85x85	fast	☀☀		●	●	●	●	35	 					●	●
Tulip poplar	<i>Liriodendron tulipifera</i>	yes	70x40	fast	☀				●		17	  						●
Tupelotree (Black gum)	<i>Nyssa sylvatica</i>	yes	45x25	med	☀☀	●	●		●	●	35	  	●	●	●	●	●	

## Why plant trees?

**Plant trees to help our climate!** Trees are essential infrastructure in towns and cities. Trees reduce stormwater run-off, improve water quality, reduce the heat island effect, clean the air, and sequester carbon.

**Plant trees to help wildlife!** Trees provide nectar for pollinators and food for birds and mammals. Trees are also essential sheltering and nesting sites for birds and mammals.

**Plant trees to help people!** Trees help to improve mental and physical well-being. They also improve productivity and boost educational outcomes.




**Plant trees to help our community!** Trees reduce cooling costs, increase property values, reduce traffic accidents, and improve local economies.

Learn more about the benefits of trees at <https://bit.ly/3447d96>.




Choose the largest tree a site allows – larger trees provide more ecological benefits.

## DEFINITIONS



### Light exposure

-  Full sun
-  Part sun/shade
-  Full shade

### Provides food or other wildlife values

-  Bees and other insects
-  Birds
-  Small mammals

### Provides showy flowers or fall foliage

-  Showy flowers
-  Colorful fall foliage



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ORNAMENTAL / SMALL STATURE TREES		Physical Characteristics			Growing Conditions						Habitat Values		Aesthetic Values	Suitable locations in yards				
Common name	Botanical name	North American Native	Average height x spread (feet)	Growth rate	Light exposure	Drought tolerant	Salt tolerant	Air pollution tolerant	Wet soil tolerant	Climate change adaptive	# of moth & butterfly species hosted	Provides food or other wildlife values	Provides showy flowers or fall foliage	Sites w overhead wires	Sites w/ limited canopy area	Sites with limited rooting area	Sites with regularly wet soils	Sites with no constraints
Buckeye, Yellow	<i>Aesculus flava</i> 'Homestead'	yes	30x25	fast	☀️☀️	●					7	🐛🐦	🌸	●	●			
Cornelian cherry	<i>Cornus mas</i>	no	25x15	slow	☀️☀️					●	117	🐛🐦🐦	🌸	●	●	●		
Crabapple	<i>Malus transitoria</i> 'Royal Raindrops'	no	20x15	med	☀️			●			311	🐛🐦🐦	🌸	●	●	●		
Crabapple	<i>Malus halliana</i> 'Adirondack'	no	20x10	med	☀️					●	311	🐛🐦🐦	🌸	●	●	●		
Crabapple	<i>Malus</i> 'Red Jewel'	no	20x15	slow	☀️						311	🐛🐦🐦	🌸	●	●	●		
Dogwood, Flowering	<i>Cornus florida</i> 'Cloud Nine' and 'Spring Grove'	yes	25x20	med	☀️☀️						101	🐛🐦🐦	🌸	●	●			
Hawthorn, Green	<i>Crataegus viridis</i> 'Winter King'	yes	30x25	med	☀️	●		●			159	🐛🐦🐦	🌸	●				●
Hophornbeam, American (Ironwood)	<i>Ostrya virginiana</i>	yes	30x20	med	☀️☀️	●			●		88	🐛🐦		●	●			
Hornbeam, American (Musclewood)	<i>Carpinus caroliniana</i> 'Autumn Fire'	yes	25x20	slow	☀️☀️				●	●	72	🐛🐦	🌸	●	●	●		
Magnolia, Sweetbay	<i>Magnolia virginiana</i>	yes	25x25	med	☀️☀️				●		3	🐛🐦🐦	🌸	●	●	●		
Maple, Striped	<i>Acer pensylvanicum</i>	yes	30x20	slow	☀️☀️				●		271	🐛🐦🐦	🌸	●	●			●
Redbud, Eastern	<i>Cercis canadensis</i> 'Appalachian Red'	yes	25x25	med	☀️☀️	●					21	🐛🐦	🌸	●	●	●		
Serviceberry (Shadbush)	<i>Amelanchier x grandiflora</i> 'Autumn Brilliance'	yes	25x20	med	☀️☀️					●	117	🐛🐦🐦	🌸	●	●	●		
Serviceberry, Eastern (Shadbush)	<i>Amelanchier canadensis</i>	yes	25x15	med	☀️☀️						117	🐛🐦🐦	🌸	●	●		●	
Silverbell, Carolina	<i>Halesia carolina</i>	yes	35x30	slow	☀️☀️						10	🐛	🌸	●	●			
Sourwood	<i>Oxydendrum arboreum</i>	yes	30x20	slow	☀️☀️						14	🐛	🌸					●
Witchhazel	<i>Hamamelis virginiana</i>	yes	25x20	med	☀️☀️				●		68	🐛🐦	🌸	●				

## Why plant natives?

Greenfield Tree Committee strongly endorses planting native tree species.

Native tree species, insects, birds and mammals have evolved together. Native trees provide food for pollinators, insects, birds and mammals. Native maples, for example, sustain up to 300 species of moths and butterflies. Non-native Norway maples sustain only 7 species. And chickadees need over 70% of trees near their nests to be native in order to find enough insects to raise their young. Find out what native trees your favorite butterfly depends on at [www.nwf.org/NativePlantFinder/](http://www.nwf.org/NativePlantFinder/) and learn more about birds and their habitat at [desireelnarango.weebly.com/research.html](http://desireelnarango.weebly.com/research.html).

**Choose a native tree every time the opportunity arises!**

Note that a number of native trees are excluded from this list due to disease and/or insect infestation (hemlock, beech and ash). Others are excluded because they are not climate resilient, are not suitable for planting near streets or sidewalks, and/or are not available to purchase locally.

Also note that there are a few non-native species we have included because they are very tough (ginkgo) or because they support native pollinators and provide other wildlife benefits (crabapple and Cornelian cherry).

Where possible, remove invasive non-native trees (Norway maple, amur maple, Callery pear 'Bradford', Japanese tree lilac and tree of heaven). Learn about invasive trees and plants: <https://bit.ly/39zS407>

*Durr's Encyclopedia of Trees and Shrubs* was a primary source of information for this list.

Note: This list is subject to change as more trees become available locally and as climate change data is updated.



**Want a free shade tree?**

To request a free shade tree on your tree belt or front lawn – or for permission to plant a tree on your tree belt - contact the Greenfield DPW at (413) 772-1528.



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