

# The City of Decatur Tree Species List

The City of Decatur Tree Species List is intended to support the Tree Canopy Conservation Ordinance and all site planning and design activities for tree conservation and establishment, and for tree maintenance planning and decision-making. In the list trees are arranged alphabetically by the tree's common name with the "genus" listed first. For example, red maple is listed as "Maple, Red" (maple is the genus name). The Latin name is also listed for more definitive species identification. In some cases, the commonly planted variety or cultivar of the species has also been included apart from the species.

## Key to Symbols and Tree Species Characteristic Descriptions

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
Species Common Name	Entered with genus common name first, then species, then cultivar if applicable. For some species an alternate common name is included in parentheses.
Latin Name	Genus, species, and variety or cultivar; always italicized or underlined.
<b>CANOPY AREA FOR DEVELOPMENT CODE</b>	
Square Feet of Canopy	The total area projection of the crown onto the ground in square feet as typically achieved in urban situations with less than optimal growing conditions.
Mature Canopy Size Category	Very Small - 150 square feet with a 15 foot crown diameter <i>The minimum open soil surface area is 25 sq. ft.</i>
	Small - 400 square feet with a 25 foot crown diameter <i>The minimum open soil surface area is 100 sq. ft.</i>
	Medium - 900 square feet with a 35 foot crown diameter <i>The minimum open soil surface area is 225 sq. ft.</i>
	Large - 1,600 square feet with a 45 foot crown diameter <i>The minimum open soil surface area is 400 sq. ft.</i>
<b>RECOMMENDED USES</b>	
Approved Level of Use	The level of use approved for the species.
	P = Plant New Trees and Conserve Existing Trees
	C = Conserve Existing Trees
	L = For Limited Planting or Conservation Only
Large Landscape Areas Road Frontages - Street Road Frontages - Yard Parking Lots Plazas and Downtown Settings Riparian Zones and Drainage Areas Utility Corridors	N = Do Not Plant
	The site situation where the tree should be planted and/or conserved.
	O = tree to avoid; not suitable
	Blank = may or may not be suitable
	x = good choice XX = excellent choice

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
<b>PHYSICAL CHARACTERISTICS</b>	
Height Class in Urban Conditions	<p>Height class (ground to tip of leader or tallest branch) of a mature tree commonly achieved in urban situations with less than optimal growing conditions.</p> <p>S = Small: 15-25 feet  M = Medium: 25-40 feet  L = Large: 40 feet and taller</p>
Crown Class in Urban Conditions	<p>The width of the crown (at its widest point) commonly achieved in urban situations with less than optimal growing conditions.</p> <p>VS = Very Small (150 square feet with a 15 foot crown diameter)  S = Small (400 square feet with a 25 foot crown diameter)  M = Medium (900 square feet with a 35 foot crown diameter)  L = Large (1,600 square feet with a 45 foot crown diameter)</p>
Mature Crown Form	<p>General shape of the tree crown (leaves and branches) when fully leafed out.</p> <p>Irregular  Multi-Stemmed  Oval (Columnar)  Pyramidal  Rounded  Spreading  Upright (Vase)</p>
Typical Range of Mature Tree Height	Typical range of height of tree in feet from ground to bud at tip of leader or tallest branch under various conditions.
Typical Range of Mature Crown Width	Typical range of spread of branches in feet at the widest diameter across the crown under various conditions.
Leaf Type	<p>Persistence and type of leaf on the tree. Deciduous trees lose their leaves in the fall.</p> <p>DB = Deciduous Broadleaf  DC = Deciduous Conifer  EB = Evergreen Broadleaf  EC = Evergreen Conifer</p>
Leaf Texture	<p>Relative size and appearance of leaves.</p> <p>F = Fine  M = Medium  C = Coarse</p>
Fall Leaf Color	<p>The typical color of the tree's fall foliage.</p> <p>EV = evergreen  BR = bronze or brown  MA = maroon  MU = multi-colored: maroon, red, orange, yellow  OR = orange  RE = red  YE = yellow  I = insignificant color change</p>

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
<b>PHYSICAL CHARACTERISTICS (continued)</b>	
Flower Color	For trees with showy flowers, indicates the typical flower color.
	B = blue
	L = purple
	M = multiple colors: white, pink, purple, red, or others
	P = pink
	R = red
	W = white
	Y = yellow
Flowering Time	I = insignificant flowers: small with an unremarkable color
Flowering Time	For trees with showy flowers, the general season of blooming for the species.
Wildlife Value	Indicates with an "X" if the tree produces flowers (nectar) or fruits that are consumed by insects, birds, or mammals.
Excessive Litter	Indicates with an "X" if the tree produces large or hazardous leaves, fruit, or other litter.
<b>ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES</b>	
Native Tree to Decatur, Georgia	Indicates whether or not the tree is found naturally growing in the Decatur area.
	Y = Yes
	N = No
Growth Rate	Typical rate of growth under urban conditions.
	S = Slow: 1/2 to 1-1/2 feet/year
	M = Moderate: 1-1/2 to 2-1/2 feet/year
	F = Fast: 2-1/2 to 3+ feet/year
Average Life Span	The average life span (useful service life) of the species when growing under average urban conditions. A tree is at the end of its useful service life when its risk of failure becomes unacceptable and cannot be improved or when the tree is no longer an asset due to its appearance or condition.
	S = Short: less than 25 years useful service life.
	M = Moderate: 25 to 40 years useful service life.
	L = Long: 50 years or greater useful service life.
Net Effect on Air Quality	The net monetary effects in cents attributable to the species on air quality; listed as a benefit (positive) or cost (negative). Includes the species net effect on ozone, sulfur dioxide, nitrogen dioxide, particulate matter (PM10), and carbon monoxide.
Soil Moisture	The typical soil moisture conditions for the species in its native habitat.
	H = Hydric: wet and may be occasionally flooded for short periods
	M = Mesic: moist but moderately well- to well-drained
	X = Xeric: dry and very well-drained

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
<b>ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES (continued)</b>	
<b>Drought Tolerance</b>	<p><b>Tolerance of the species to infrequent rain, low soil moisture, full sun, and high temperatures.</b></p> <p>Low = not tolerant to drought conditions</p> <p>Moderate = tolerant to mild drought conditions; moderately tolerant to severe drought conditions</p> <p>High = very tolerant to mild to severe and prolonged drought conditions</p>
<b>Preferred Soil pH</b>	<p><b>Relative soil acidity or alkalinity preferred by the species. In many cases, a range of pH preference is given if it was available. In other cases, a general level is given. A pH of 7.0 is neutral, a pH of less than 7.0 is acidic, and a pH of greater than 7.0 is alkaline.</b></p> <p>ac = acidic (5.0 to 6.0)</p> <p>sl ac = slightly acidic (6.0 to 7.0)</p> <p>nu = neutral (7.0)</p> <p>sl al = sl alkaline (7.0 to 8.0)</p> <p>al = alkaline (8.0 to 8.5)</p> <p>n/a = no information available</p>
<b>Light Requirement</b>	<p><b>The amount of sunlight the species prefers or will tolerate. Trees that are typically found in the understory or are characteristic of late forest successional stages prefer shade or at least partial shade, while trees that typically form the overstory or are characteristic of early successional stages prefer full sun.</b></p> <p>FS = Full Sun</p> <p>PS = Partial Shade</p> <p>SH = Shade</p>
<b>Construction Tolerance/Limitations</b>	<p><b>The broad tolerance of the species in its home range to construction damage, and the limitations that constrain a species tolerance to damage.</b></p> <p>Tolerance</p> <p>P = Poor</p> <p>M = Moderate</p> <p>G = Good</p> <p>Limitations</p> <p>I = physical injury, wood compartmentalization and decay</p> <p>P = pest complications, including chronic and acute attacks</p> <p>S = soil conditions, including aeration and water availability</p> <p>C = limited climatic tolerances, including native range, hardiness, and micro-climate change</p> <p>A = all of the limitations described above</p>
<b>Urban Tolerant Tree</b>	<p><b>Based upon other characteristics and tolerances to urban conditions; an "X" indicates the species is suitable for planting under "tough" urban conditions.</b></p>







# City of Decatur Tree Species List

SPECIES COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE		RECOMMENDED USES								PHYSICAL CHARACTERISTICS										ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES													
		Square Feet of Canopy	Parking Lot Canopy Tree Mature Canopy Size Category	Approved Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Barriers	Riparian Zones and Drainage Areas	Utility Corridors	Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	Native Tree to Athens-Clarke Co.	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree	
Smoketree, American	<i>Cotinus obovatus</i>	150	1	Very Small	L		x					x	S	VS	Oval	15-30	10-25	DB	M	MU	P	1	Spring			Y	M	S	n/a	D	H	sl ac-sl alk	PS	n/a	X
Smoketree, Common	<i>Cotinus coggygia</i>	150	1	Very Small	L		ix					ix	S	VS	Oval	10-15	10-15	DB	IM	IMU	P	1	Late Spring			N	M	S	n/a	D	H	sl ac-sl alk	FS	n/a	X
Sourwood	<i>Oxydendrum arboreum</i>	900	2	Medium	C	XX	x	x					M	M	Spreading	30-60	20-30	DB	M	RE	W	1	Summer			Y	M	S	0.018	M	M	ac-sl ac	FS	P/A	
Sparkleberry, Tree	<i>Vaccinium arboreum</i>	150	1	Very Small	C		x					x	S	VS	Irregular	10-20	5-10	DB	F	RE	W	1	Late Spring	X		Y	S	S	n/a	M	M	ac-sl alk	S	M/A	
Spruce Varieties	<i>Picea species</i>	900	1	Medium	N								L	M												N									
Sugarberry	<i>Celtis laevigata</i>	1,600	1	Large	C	x	1	x			0	x	L	L	Spreading	60-80	25-60	DB	F/M	YE	I			X		Y	M	M	0.118	M	M	ac	FS	G/I	
Sweetgum	<i>Liquidambar styraciflua</i>	1,600	1	Large	C	x	0	x	0	0	1	x	L	L	Oval	60-80	40-60	DB	M	MU	I			X	X	Y	F	L	-0.488	M	L	sl ac	FS	G/	
Sweetgum, Fruitless	<i>Liquidambar styraciflua</i> 'Rotundiloba'	1,600	2	Large	P	x	1	x	x				L	L	Oval	50-70	35-45	DB	C	IMU	I					Y	M	M	n/a	M	L	ac-sl alk	FS	n/a	
Sycamore	<i>Platanus occidentalis</i>	1,600	2	Large	P	x	1	x	x			1	L	L	Oval	70-100	30-70	DB	C	BR	I			X		Y	F	M	-0.789	M	M	sl ac-sl alk	FS	G/	
Tallowtree, Chinese	<i>Sapium sebiferum</i>	900	1	Medium	N								M	M												N									
Tree-of-Heaven (Allanthurus)	<i>Allanthurus altissima</i>	900	1	Medium	N								M	M												N									
Walnut, Black	<i>Juglans nigra</i>	1,600	1	Large	C	x	1	0	x	0	0	1	L	L	Rounded	60-70	50-70	DB	M	YE	I			X	X	Y	M	L	0.086	M	L	acidic	FS	P/IS	
Waxmyrtle, Southern	<i>Myrica cerifera</i>	150	1	Very Small	P		x	x			1	ix	S	VS	Multi-Stemmed	10-30	10-30	EB	F	EV	I			X		N	M	S	n/a	M	M	ac-alk	FS	G/	
Willow, Black	<i>Salix nigra</i>	900	1	Medium	C	x	1	0	1	0	1	ix	M	M	Irregular	30-40	30-40	DB	F/M	YE	I					Y	F	S	-0.177	W	L	n/a	FS	G/	
Willow, Weeping	<i>Salix babylonica</i>	1,600	1	Large	L	x	1	0	x	0	0	ix	L	L	Rounded	30-70	20-70	DB	F/M	YE	I					N	F	M	-0.096	W	M	acidic	FS	mg	
Winterberry, Common	<i>Ilex verticillata</i>	150	1	Very Small	P	x	x	x			1	ix	S	VS	Multi-Stemmed	5-15	5-10	DB	M	I	I			X		Y	M	S	n/a	M	L	ac	FS	G/	
Witchhazel, Common	<i>Hamelis virginiana</i>	400	1	Small	P	x	1	x			1	ix	S	S	Spreading	20-35	20-35	DB	M/C	YE	Y	1	Fall			Y	M	M	-0.009	M	M	sl ac	PS	M/IS	
Yellowwood, American	<i>Cladrastis kentukea</i>	900	2	Medium	L	x	1	x	x				M	M	Upright	30-50	40-50	DB	M/C	YE	W	1	Spring			N	M	M	0.013	M	M	n/a	PS	P/A	
Zelkova, Japanese	<i>Zelkova serrata</i>	1,600	1	Large	L		x	x	ix		1	0	L	L	Upright	40-80	30-75	DB	M	RE	I					N	M	M	0.084	M	H	ac-sl alk	FS	n/a	X

1 = trees that will project significant shade, intercept enough water, substantially filter out pollutants, and survive the conditions within a parking area to the extent they could be considered a "canopy" tree.  
 2 = same as 1, except that these trees are ONLY appropriate for large, expanded tree islands or landscape strips, swales, or moist soil conditions with plenty of rooting space.