

Marietta City Urban Forest Summary-- March 2005

These tables summarize data in the City Tree Inventory as of March 2005. Data includes trees in City Right-Of-Way along streets and in most parks.

Prepared by the Marietta City Tree Commission.

Table 1. Frequency of predominant genera.

Genus	Percent	Total Number
Acer (maples)	22	1237
Quercus (oaks)	11.4	645
Malus (crabapples)	6	337
Cornus (dogwoods)	4.8	271
Liquidambar (sweetgum)	4.7	265
Fraxinus (ash)	3.5	199
Platanus (sycamore)	3.2	178
Crataegus (hawthorn)	2.7	150
Gleditsia (honeylocust)	2.1	120
Pyrus (pear)	2.1	116
Syringa (Japanese tree lilac)	1.9	105
Liriodendron (tulip)	1.7	95
Prunus (cherry)	1.6	91
Amelanchier (serviceberry)	1.5	86
Koelreuteria (goldenrai tree)	1.5	85
Magnolia	1.4	78
Ginkgo	1.1	63
Carpinus (hornbeam)	1	57
Ulmus (elm)	1	59
# in genera <1%	14	795
	Total	5032

Table 2. Frequency of trees of different species sizes.

Species are classified according to mature tree size. Large are shade trees; small are lower growing species.

Species Size	Percent
Large	55
Medium	9.1
Small	25.9

Table 3. Summary of total diversity of city urban forest and arboretum.

Name	Total	Arboretum	Name	Total	Arboretum
Alder, European	5		Linden, Little Leaf	1	
American Sycamore	172	2	London Planetree	6	1
Apple	5		Magnolia	23	1
Arborvitae, American	2		Magnolia, Saucer	5	1
Ash, Green	60	1	Magnolia, Southern	2	1
Ash, Green-Marshall Seedless	5		Magnolia, Star	18	1
Ash, White	108	5	Magnolia, Sweetbay	13	2
Ash, White-autumn Applause	8		Maple, Amur	8	1
Ash, White-autumn Purple	3		Maple, Armstrong	1	
Baldcypress	33	1	Maple, Black	1	
Beech sp	2		Maple, Celebration	3	
Beech, American	1	1	Maple, Hedge	18	
Beech, Cutleaf	2		Maple, Japanese	26	1
Beech, European	10	3	Maple, Norway	73	1
Birch sp	9		Maple, Norway-column	1	
Birch, Paper	1		Maple, Norway-cr Kng	63	
Birch, River	34	1	Maple, Paperbark	27	
Birch, Sweet	6	1	Maple, Red	339	1
Black Locust	2		Maple, Red-red Sunst	9	
Blackgum	44	2	Maple, Silver	232	3
Blackhaw Viburnum	14	2	Maple, Sugar	422	7
Boxelder	12		Mimosa	12	
Buckeye, Bottlebrush	1	1	Mulberry, Red	3	1
Buckeye, Ohio	3	2	Nannyberry	2	
Buckeye, Yellow	17	6	Oak, Black	4	1
Butternut	2	1	Oak, Bur	3	
Catalpa, Northern	2		Oak, Chestnut	2	
Catalpa, Southern	2	2	Oak, English	3	1
Cedar, Atlas	3		Oak, Northern Red	168	7
Cherry sp	50	1	Oak, Pin	203	3
Cherry, Black	4	1	Oak, Sawtooth	15	1
Cherry, Kwanzan	13		Oak, Scarlet	11	1
Chestnut, Chinese	1		Oak, Shingle	8	1
Cottonwood, Eastern	12	1	Oak, Shumard	13	1
Crabapple	250	2	Oak, Swamp Chestnut	1	
Crabapple, Prairiefi	82	1	Oak, Swamp White	35	1
Cucumber Tree	17	1	Oak, White	7	1
Dawn Redwood	33	1	Oak, Willow	171	
Devils Walking Stick	1	1	Osage-orange	1	1
Dogwood, Drummond	5	1	Paulownia	2	1
Dogwood, Flowering	227	1	Pawpaw	3	2
Dogwood, Kousa	39	3	Peach	3	
Eastern Hophornbeam	4	1	Pear	105	
Eastern Redbud	11	1	Pear, Callery	11	
Eastern Redcedar	2		Pecan	1	

Elm sp	10		Peegee Hydrangea	1	
Elm, American	26	5	Persian Ironwood	13	1
Elm, Lacebark	22		Persimmon, Common	7	1
Elm, Slippery	1		Pine sp	10	
Evodia	1	1	Pine, Eastern White	7	
Franklin Tree	3		Plum, American	2	
Fringe Tree	37		Plum, Flowering	2	
Ginkgo	63	1	Plum, Purpleleaf	17	
Goldenrain Tree	85	2	Poplar, Balsam	1	
Hackberry	21	2	Sassafras	17	3
Hackberry, All Seaso	20		Serviceberry	86	2
Hardy Rubber Tree	53	1	Silverbell	6	1
Hawthorn sp	149	1	Smoke Tree	6	1
Hawthorn, Cockspur	1		Snowbell	3	
Hemlock, Eastern	6		Sourwood	26	
Hickory, Shagbark	2		Spicebush	1	1
Hickory, Shellbark	1	1	Spindle Tree	7	2
Holley, Winterberry	2		Spruce	5	
Holly sp	23		Spruce, Colorad Blue	3	
Holly, American	2		Spruce, Colorado	1	
Honeylocust	120	1	Spruce, Norway	5	
Hornbeam, American	17	2	Stewartia	8	1
Hornbeam, European	40		Stump	1	
Horsechestnut	3	1	Sweetgum	259	7
Horsechestnut, Red	2	2	Sweetgum,seedless	6	
Japanese Pagoda Tree	5		Tulip Tree	95	7
Japanese Tree Lilac	104	4	Turkish Hazelnut	16	
Japanese Zelkova	30		Walnut, Black	17	2
Katsura Tree	13	2	Willow	1	
Kentucky Coffeetree	34	1	Willow, Corkscrew	2	1
Korean Tree Lilac	1	1	Willow, Weeping	4	
Linden, American	49	1	Witch Hazel	1	
Linden, Greenspire	1		Yellowwood	23	3
			Total number of species	157	85

Table 4. Trunk diameter (DBH) size frequency of trees.

DBH Range	All trees	Large/medium species	Small species
0 to 2 inches	23.2	15.6	44
3 to 5	16.5	12.3	27.9
6 to 8	12.3	11.5	14.4
9 to 11	9	9.9	6.7
12 to 14	7.2	8.9	2.2
15 to 17	5.3	7.2	0.2
18 to 20	4.9	6.6	0.2
21 to 23	2.9	3.9	0.1
24 to 26	3	4.2	0.1
27 to 29	1.3	1.8	
30 to 32	1.5	2	
33 to 35	0.5	0.7	
36 to 38	1.1	1.5	
39 to 41	0.6	0.8	
42 to 44	0.4	0.5	
45 to 47	0.2	0.2	
48 to 50	0.2	0.2	
51 to 53	0	0	
54 to 56	0.1	0.1	

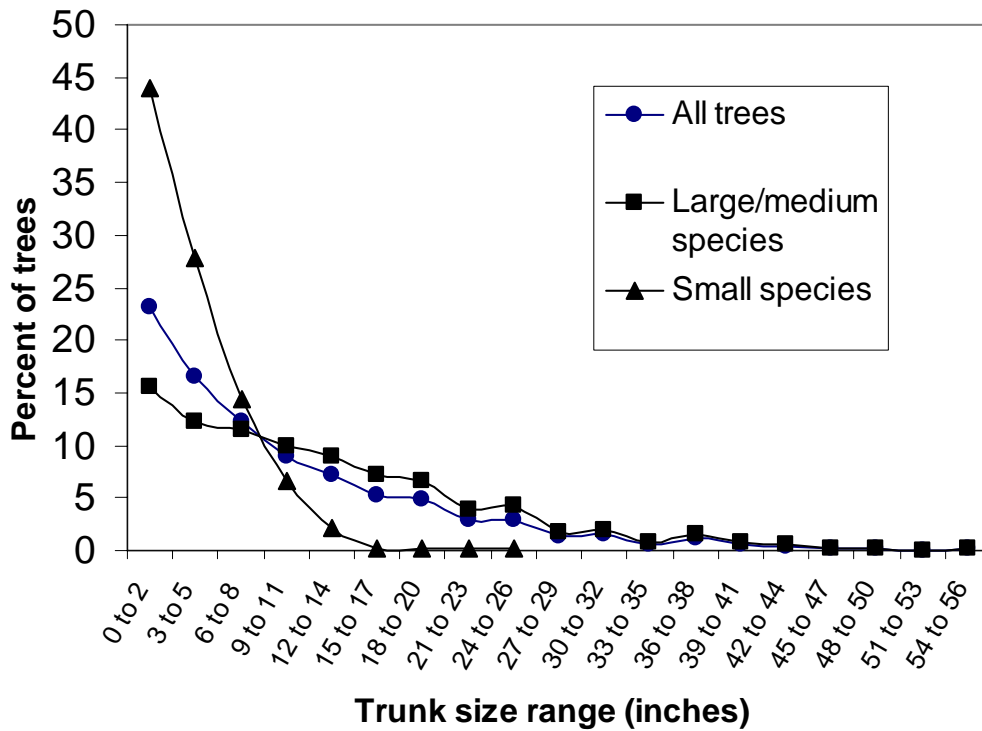


Table 5. Summary of Maintenance to-date. Records include all work contracted or done by city crews. Removals of larger trees is separated out.

Work History Type	All Trees		Trees > 5" DBH	
	Number	Cost	Number	Cost
Plant	2620	\$260,994.31		
Prune	838	\$98,986.22		
Remove	1071	\$74,174.27	523	\$71,084.27
Cable	4	\$615.00		
Fertilize	38	\$540.00		
Remove hanger	58	\$2,735.00		
Inspection	2	\$481.00		
Move	3	\$150.00		
Remove stump	56	\$1,725.00		
Spray	40	\$50.00		
Other	12	\$170.00		

Note that most contracted maintenance records have been entered in the inventory only since 1996, whereas planting records date back to 1984. Total contracted maintenance costs have been \$179,626.49; this does not include work done by City Crews and Tree Commission members. Approximately \$94,000 of the cost of tree planting has been funded through grants (see Table 8). 'Other' includes such things as straightening trees.

Table 6. Tree planting numbers and costs.

This includes all trees purchased and donated.

The inventory has record of 200 donated trees.

Year	Trees planted	Total cost	Avg Cost
1984	18	\$884.00	\$49.11
1986	7	\$105.00	\$15.00
1987	72	\$5990.00	\$83.19
1989	37	\$2754.00	\$74.43
1991	83	\$6740.00	\$81.20
1992	108	\$7836.00	\$72.56
1993	93	\$9123.00	\$98.10
1994	217	\$19128.00	\$88.15
1995	140	\$11742.95	\$83.88
1996	196	\$19420.90	\$99.09
1997	173	\$19837.09	\$114.67
1998	226	\$27295.82	\$120.78
1999	169	\$19609.80	\$116.03
2000	167	\$22983.50	\$137.63
2001	193	\$30721.95	\$159.18
2002	144	\$21027.95	\$146.03
2003	171	\$19437.35	\$113.67
2004	115	\$16357.00	\$142.23

Inventory records show 510 of trees with planting records have died. Almost all of these had a relatively small trunk size (DBH < 4"). This represents a mortality rate of about 20% for recently planted trees, although this figure will not reflect loss of trees planted in most recent years.

Table 7. Numbers of trees pruned and removed. Records of contracted work records have been maintained in the inventory only since 1996. Data are for trees with trunk diameters >5 inches.

Year	# Pruned	# Removed
1996	55	4
1997	110	51
1998	115	193
1999	87	63
2000	73	36
2001	79	50
2002	113	40
2003	56	36
2004	73	47

Table 8. Tree Commission Grants and Major Donations
External Funding Sources

ALLG = Allegheny Power
RFA = Praxair Rooting for America Program
ODNR = Ohio Department of Natural Resources
ODOT = Ohio Department of Transportation
SBA = Small Business Association
MCF = Marietta Community Foundation
OEPA = Ohio Env'r Protection Agency
DON = Private Donation

<u>Year</u>	<u>Source</u>	<u>Funding</u>	<u>Purpose</u>
1993	ODNR	\$20,000	Urban Forestry grant for large sycamore pruning
1994	ODNR	5,000	Urban Forestry management grant for computer software
	ODOT	1,837	Tree plantings around town
	SBA	5,000	Planting of crabapples at Washington St cloverleaf
1995	ODNR	4,000	Tree plantings around town
1996	MCF	7,000	Native tree plantings around town
	RFA	2,000	Tree planting in Kiwanis Park
1997	MCF	3,000	Tree plantings along Front St.
	RFA	500	Tree plantings around town
	DON	2,000	Memorial fund for tree plantings around town
1998	OEPA	22,500	Tree Planting around town
	DON	2,000	Replacement of storm damaged trees around town
	RFA	500	Tree planting around town
	ALLG	1,500	Tree planting along Washington School
1999	RFA	500	Arbor Day Tree & other plantings around town
	DON	1,000	From the daughters of the American Revolution for planting of buckeye trees in parks
2000	ALLG	1,125	Ohio Riverbank planting
	RFA	500	Arbor Day Tree and other plantings around town
	ODNR	4,000	Tree Planting in business districts
2001	ALLG	14,000	Low growing trees under wires
2003	ODNR	15,000	Various planting projects around the town
2005	ODOT	6,000	Gateway grant for city entrance ways
Totals:	Maintenance	25,000	
	Planting	93,962	