

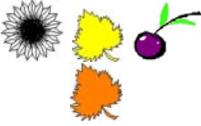
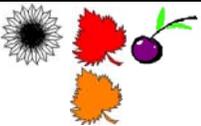
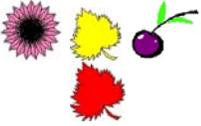
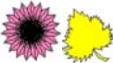
## Appendix 9. Tree species and varieties recommended for use as street trees in State College

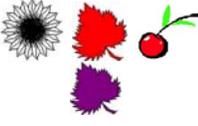
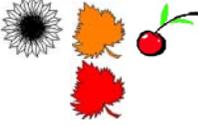
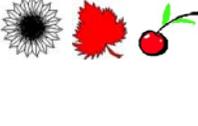
Key to symbols used:

<u>Growth Habit</u>		<u>Site Tolerance</u>		<u>Seasonal Interest</u>	
	Columnar		Requires full sun		Fruit color/showy
	Vase Shaped		Prefers shade		Flower color/showy
	Conical		Poor, dry soil		Fall foliage/showy
	Rounded		Moist soil		
	Spreading		Urban stresses		
			Salt		

**A. SMALL TREES.** Mature ht. less than 30ft. Minimum tree lawn 2ft; may be planted under wires.

Species	Growth Habit	Site Tolerance	Seasonal Interest	Caution/Comments
<i>Acer buergeranum</i> Trident Maple *(TF) Small growing, 3 lobed leaf maple with few pests. May be damaged in ice storms.		  	 	Slow growing and availability may be limited.
<i>A. ginnala</i> Amur Maple (TF) Small growing, 3 lobed leaf maple, often multi-stemmed with abundant fruit set which may be colorful. Does not tolerate alkaline soil.		 or  	  	Slow growth. Susceptible to verticillium wilt. Fruit may cause litter problem. Has shown invasive tendencies in some parts of Northeastern U.S.
<i>A. tataricum</i> Tatarian Maple (TF) Small growing maple with greenish white paniced flowers and noticeable green to red fruit (samaras). Tolerates alkaline soil.		 or   	 	Slow growing and availability may be limited. Susceptible to verticillium wilt.

<p><b><i>Amelanchier laevis</i></b>  <b>‘Cumulus’</b>          Cumulus Serviceberry          Early white flowering tree with persistent edible fruit. Light colored bark with dark vertical striations provides interest throughout the year. Grows poorly in full sun.</p>		  		<p>Leaf diseases &amp; fireblight may be problem. Sensitive to drought and salt.</p>
<p><b><i>A.x.grandiflora</i></b> <b>‘Autumn Brilliance’</b>          Autumn Brilliance Serviceberry          Good growth habit with vibrant orange to red foliage in the fall. Grows poorly in full sun.</p>		  		<p>Leaf diseases &amp; fireblight may be problem. Sensitive to drought and salt.</p>
<p><b><i>A.x.g.</i></b> <b>‘Princess Diana’</b>          Princess Diana Serviceberry          Variety similar to above but with bright red foliage in the fall.</p>		  		<p>Leaf diseases &amp; fireblight may be problem. Sensitive to drought and salt.</p>
<p><b><i>A.x.g.</i></b> <b>‘Robin Hill’</b>          Robin Hill Serviceberry          Better tree form than other varieties.</p>	 to 	  		<p>Leaf disease &amp; fireblight may be problem. Sensitive to drought, salt &amp; air pollution.</p>
<p><b><i>Cercis canadensis</i></b>          Eastern Redbud          Colorful native tree that can be used as street tree and in woodland settings. Nitrogen fixing plant.</p>		 or   		<p>Affected by canker and verticillium wilt.</p>
<p><b><i>C.c. var alba</i></b>          White Flowering Redbud          Similar to above but with white flowers.</p>		 or   		<p>Affected by canker and verticillium wilt.</p>

<p><b>C.c. 'Forest pansy'</b> Forest Pansy Redbud A red leaved variety of Eastern Redbud.</p>		 or   		<p>Same as species. Cold hardness may be a problem.</p>
<p><b>Cornus kousa</b> Kousa Dogwood A slow growing ornamental prized for its layered white blossoms. Edible fruit.</p>	 to 	  		<p>Fall planting hazard. Exfoliating bark provides summer interest.</p>
<p><b>Cornus kousa x C. florida 'Rutcan'</b> Constellation Dogwood Cross between our native Flowering Dogwood &amp; Chinese Dogwood. Flowers after Flowering Dogwood &amp; before Kousa Dogwood.</p>		   or 		<p>No fruit litter problems like other dogwoods. Resistant to anthracnose &amp; dogwood borer.</p>
<p><b>Cornus mas</b> Cornelian Cherry Dogwood One of the first trees to bloom in spring with small yellow flowers.</p>		 or   		<p>Flaky bark provides year round interest. Basically pest free, suckers may be a problem. Fall planting hazard</p>
<p><b>Crataegus crus-galli var inermis (TF)</b> Thornless Cockspur Hawthorn Thornless native tree with attractive flowers.</p>		   		<p>Flowers may give off unpleasant odor. Prone to cedar apple rust. Fall planting hazard.</p>
<p><b>C. phaenopyrum</b> Washington Hawthorn (TF) An attractive small tree to plant in difficult locations.</p>		   		<p>Thorns may be a problem. Fall planting hazard.</p>

<p><b><i>C. punctata</i> ‘Ohio Pioneer’</b> Ohio Pioneer Hawthorn (TF) Good tree for difficult sites.</p>		 or   U	 	<p>Resistant to fireblight. Fruit may cause litter problem. Fall planting hazard.</p>
<p><b><i>C. viridis</i> ‘Winter King’</b> Winter King Hawthorn (TF) Tree selected from native plant.</p>		 U	   	<p>Bark provides year round interest. Suckering may be a problem. Fall planting hazard.</p>
<p><b><i>Magnolia stellata</i></b> Star Magnolia (TF) May be used as street tree in sheltered location. Slow growing.</p>				<p>Susceptible to verticillium wilt &amp; magnolia scale. Slow growing. Fall planting hazard.</p>
<p><b><i>M. galaxy</i></b> Galaxy Magnolia (TF) Rapidly growing hybrid.</p>				<p>Flowers may cause litter problem. Susceptible to verticillium wilt &amp; scale insects. Fall planting hazard.</p>
<p><b><i>M. x loebneri</i> ‘Merrill’</b> Merrill Magnolia (TF)</p>		 S		<p>Fragrant flowers. Susceptible to verticillium wilt. Fall planting hazard.</p>
<p><b><i>Malus</i> ‘Prairiefire’</b> Prairiefire Crabapple (TF) Attractive small tree with reddish green summer foliage &amp; reddish brown bark.</p>			 	<p>Suckers may cause problem but no serious limitations.</p>
<p><b><i>M.</i> ‘Sugar Tyme’</b> Sugar Tyme Crabapple (TF) Good street tree with upright branching when young.</p>		 or  	 	<p>Suckers may cause problems. Good disease resistance</p>

<p><b><i>Prunus</i> 'Okame'</b> Okame Cherry Branching more delicate and upright than other cherries.</p>				<p>Fall planting hazard.</p>
<p><b><i>P. virginiana</i> 'Shubert'</b> Shubert Chokecherry or Canada Red Cherry Colorful red or maroon foliage during growing season.</p>		 U		<p>Suckers may cause problems. Young trees produce long, weak branches that may need pruned.</p>
<p><b><i>Syringa reticulata</i> 'Ivory Silk'</b> Ivory Silk Tree Lilac Good street tree for small spaces with attractive reddish brown bark.</p>				<p>Susceptible to powdery mildew &amp; lilac borer.</p>
<p><b><i>S. r.</i> 'Regent'</b> Regent Tree Lilac More vigorous than Ivory Silk.</p>				<p>Susceptible to powdery mildew &amp; lilac borer.</p>

\*(TF) – Indicates that the tree form should be specified when ordering

Key to symbols used:

<u>Growth Habit</u>		<u>Site Tolerance</u>		<u>Seasonal Interest</u>	
	Columnar		Requires full sun		Fruit color/showy
	Vase Shaped		Prefers shade		Flower color/showy
	Conical		Poor, dry soil		Fall foliage/showy
	Rounded		Moist soil		
	Spreading	U	Urban stresses		
		S	Salt		

**B. MEDIUM TREES.** Mature ht. 30 to 50 ft. Minimum tree lawn 3ft; most may be planted under wires.

<u>Species</u>	<u>Growth Habit</u>	<u>Site Tolerance</u>	<u>Seasonal Interest</u>	<u>Caution/ Comments</u>
<i>Acer campestre</i> Hedge Maple Slow growing tree with typical maple form that can be planted under power lines.		 or   U		Susceptible to verticillium wilt. Closely spaced trees can produce dense shade.
<i>A. c.</i> 'Queen Elizabeth' Queen Elizabeth Hedge Maple More upright than species.		 or   U		This variety is more susceptible to frost cracks. Also susceptible to verticillium wilt.
<i>A. saccharum</i> 'Goldspire' Goldspire Sugar Maple Narrow compact tree with dark summer foliage.				Sensitive to salt. Very susceptible to verticillium wilt. Not tolerant of urban stresses
<i>A. truncatum x A. platanoides</i> 'Warrenred' Pacific Sunset Hybrid Maple		 or  U 		Availability may be problem.

<p><b><i>Aesculus x carnea 'Briotii'</i></b>  Ruby Red Horsechestnut  Medium growing tree with very showy flowers.</p>		 U		Less sensitive to heat & drought than other horsechestnuts. Availability may be problem.
<p><b><i>Betula nigra 'Heritage'</i></b>  Heritage River Birch (TF)  Good tree for tough sites.</p>		 or 	Salmon colored flaky bark	Somewhat resistant to bronze birch borer. pH sensitive. Requires pruning to maintain clearance. Fall planting hazard.
<p><b><i>Carpinus betulus</i></b>  European Hornbeam (TF)</p>	 to 	 or   U		Fall planting hazard.
<p><b><i>C. b. 'Fastigate'</i></b>  Upright European Hornbeam (TF)  Very formal looking tree. Usually low branched.</p>		 or  U		Fall planting hazard. Best if used in wide tree lawns or park like settings. Requires little pruning.
<p><b><i>C. caroliniana</i></b>  American Hornbeam (TF)  Also called muscle wood because of its smooth fluted bark.</p>	 to 		  	Grows well in small places. Sensitive to drought and soil compaction. Fall planting hazard.
<p><b><i>Cladrastis lutea</i></b>  American Yellowwood (TF)  Usually a low branched tree with fragrant flowers.</p>		 	 	Sensitive to drought and compaction. Susceptible to verticillium wilt. Poor branching habit, scale insects may be a problem.
<p><b><i>Eucommia ulmoides</i></b>  Hardy Rubber Tree  Medium size tree with attractive summer foliage.</p>		 U		No serious disease or pest known. Produces latex. Availability may be limited.
<p><b><i>Koelreuteria paniculata</i></b>  Golden Raintree  Fragrant flowers and bladder-like fruit make this a good ornamental for residential areas.</p>		U S	  	No serious disease or pest known except verticillium wilt. Fall planting hazard.
<p><b><i>Ostrya virginiana</i></b>  American Hophornbeam (TF)  Native tree with scaly bark.</p>	 to 	 or 	 	Sensitive to salt and urban conditions. Availability may be a problem.

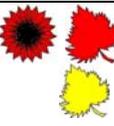
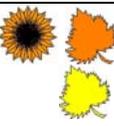
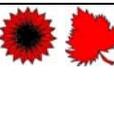
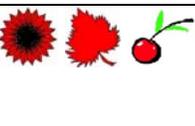
<b><i>Phellodendron amurense</i></b> Amur Corktree				
<b><i>P.a. 'Macho'</i></b> Macho Amur Corktree More upright than species.	 to 	 or   <b>U</b>		Fall planting hazard. Male variety of species that dose not produce fruit. Has spreading root system
<b><i>Prunus sargentii</i></b> Sargent Cherry (TF) Reddish brown bark with obvious white lenticels.		  	 	Hardy flowering tree but short lived. Fall planting hazard.
<b><i>P.s. 'Columnar'</i></b> Columnar Sargent Cherry		  	 	Same as species
<b><i>P. serrulata 'Kwanzan'</i></b> Kwanzan Cherry (TF) Flowering ornamental famous for the cherry blossom display in Washington, DC.		  <b>S</b>		Sensitive to pollution and several insects. Fall planting hazard.
<b><i>Robinia pseudoacacia 'Purple Robe'</i></b> Purple Robe Black Locust A good ornamental for difficult areas with fragrant flowers.		  <b>S U</b>		Availability may be problem. Susceptible to borers. May produce sucker sprouts.
<b><i>Sassafras albidum</i></b> Sassafras Native tree with fragrant leaves and bark.	 to 	 or 	  	Few pest problems. Availability may be problem. pH sensitive.

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	Conical		Poor, dry soil		Fall foliage/showy
	Rounded		Moist soil		
	Spreading		Urban stresses		
			Salt		

**C. LARGE TREES** Mature ht. over 50ft. Minimum tree lawn 5ft; do not plant under wires.

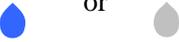
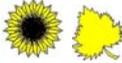
Species	Growth Habit	Site Tolerance	Seasonal Interest	Caution/Comments
<i>Acer rubrum</i> 'Autumn Flame' Autumn Flame Red Maple Good tree for structure and fall color if planted on appropriate sites.		 or 		May be susceptible to verticillium wilt. pH sensitive. Fall planting hazard. Shallow root system.
<i>A.r.</i> 'Bowhall' Bowhall Red Maple Good tree for limited space conditions.		 or 		May be susceptible to verticillium wilt. pH sensitive. Fall planting hazard. Shallow root system.
<i>A. r.</i> 'October Glory' October Glory Red Maple One of the best Red Maple cultivars for fall color. Popular homeowner tree.		 or 		May be susceptible to verticillium wilt. pH sensitive. Fall planting hazard. Shallow root system.
<i>A.r.</i> 'Red Sunset' Red Sunset Red Maple Even more brilliant fall color than October Glory.		 or 		Same as above plus susceptible to wind driven road salt.

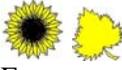
<p><b><i>A. saccharum</i></b>  <b>Sugar Maple</b>          Native tree that has been over-planted as a street tree.</p>		 or  		<p>Sensitive to road salt and very susceptible to verticillium wilt. Does not do well on difficult sites.</p>
<p><b>A.s. 'Bonfire'</b>  <b>Bonfire Sugar Maple</b>          Broad crown with good fall color.</p>				<p>Sensitive to road salt and verticillium wilt. Does not do well on difficult sites.</p>
<p><b>A.s. 'Green Mountain'</b>  <b>Green Mountain Sugar Maple'</b>          More upright than species.</p>				<p>Sensitive to road salt and verticillium wilt. Does not do well on difficult sites.</p>
<p><b>A.s. 'Legacy'</b>  <b>Legacy Sugar Maple</b>          Rapid growing cultivar with dark green summer foliage.</p>				<p>Availability may be a problem. May require regular pruning to maintain clearance. Fall planting hazard. Not affected by limestone soils.</p>
<p><b><i>A. x freemani</i> 'Autumn Blaze'</b>  <b>Autumn Blaze Hybrid Maple</b>          A cross between Red &amp; Silver Maples with branching structure &amp; color of Red Maple but rapid growth and adaptability of Silver Maple.</p>		 or   or  		<p>Shallow root system.</p>
<p><b><i>A.x freemani</i> 'Celebration'</b>  <b>Celebration Hybrid Maple</b>          A cross between Red and Silver Maple with branching structure &amp; color of Red Maple but rapid growth and adaptability of Silver Maple.</p>		 or   or  		<p>Not affected by limestone soils. Susceptible to verticillium wilt. Fall planting hazard.</p>
<p><b><i>A.x freemani</i> 'Scarlet Sentinel'</b>  <b>Scarlet Sentinel Hybrid maple</b>          A cross between Red and Silver Maple with branching structure &amp; color of Red Maple but rapid growth and adaptability of Silver Maple.</p>	 to 	 or   or  		<p>Shallow root system. Susceptible to verticillium wilt. Fall planting hazard.</p>

<p><b><i>Celtis occidentalis</i> ‘Prairie Pride’</b> Prairie Pride Hackberry Rapid growing tree good for difficult sites.</p>		 or   		Availability may be a problem. May require regular pruning to maintain clearance. Fall planting hazard. Not affected by limestone soils.
<p><b><i>C. laevigata</i> x o. ‘Magnifica’</b> Magnifica Hackberry Rapid growing tree good for difficult sites.</p>		 or   		Availability may be a problem. May require regular pruning to maintain clearance. Fall planting hazard. Not affected by limestone soils.
<p><b><i>Cercidiphyllum japonicum</i> (TF)</b> Katsura Tree Scaly bark &amp; red buds add interest year round.</p>		 		Sometimes difficult to establish after transplanting, but grows rapidly. Drought sensitive.
<p><b><i>Corylus colurna</i></b> Turkish Filbert A good urban tree where space is limited.</p>		 		Availability may be a problem. Little fall color.
<p><b><i>Ginkgo biloba</i> ‘Autumn Gold’</b> Autumn Gold Ginkgo Good urban tree.</p>		 		Availability may be a problem. Few insect or disease problems.
<p><b><i>G.b.</i> ‘Lakeview’</b> Lakeview Ginkgo Narrow form ideal for sites with limited space.</p>		 		Availability may be a problem. Few insect or disease problems. Fruitless.
<p><b><i>G.b.</i> ‘Princeton Sentry’</b> Princeton Sentry Ginkgo Narrow form ideal for sites with limited space.</p>		 		Availability may be a problem. Few insect or disease problems.
<p><b><i>Gleditsia triacanthos</i> ‘Imperial’</b> Imperial Honeylocust Lower growing form of Honeylocust.</p>		   		Susceptible to webworm, borers and plant bugs. Usually fruitless.
<p><b><i>G. t.</i> ‘Ruby Lace’</b> Ruby Lace Honeylocust Red summer foliage.</p>		 		Poor form and increased susceptibility to insects and diseases. Use sparingly.

<p><b>G.t. 'ShadeMaster'</b> Shademaster Honeylocust</p>	 to 	  U S		<p>Susceptible to webworm, borers and plant bugs. Reduced fruiting.</p>
<p><b>G. t. 'Skyline'</b> Skyline Honeylocust Has a strong central leader and is more compact than other cultivars.</p>		  U S		<p>Reduced fruiting. Less susceptible to plant bugs &amp; leaf hoppers than other cultivars.</p>
<p><b>Gymnocladus dioicus</b> Kentucky Coffeetree Good urban tree requiring little care after establishment.</p>		  U S		<p>Pod fruit may be nuisance on female trees. Few disease or insect problems. Slow to establish.</p>
<p><b>Liquidambar styraciflua</b> Sweetgum Beautiful, symmetrical plant when young, more spreading as it ages.</p>	 to 		 	<p>Fall planting hazard. Spiked, round fruit may cause litter problem. Ice and snow damage common. Chlorosis on high pH soils.</p>
<p><b>L.s. 'Rotundiloba'</b> Rotundiloba Sweetgum Fruitless variety of species.</p>				<p>Crown narrower than species. Fruitless. Fall planting hazard. Availability may be a problem.</p>
<p><b>Liriodendron tulipifera</b> Tuliptree or Yellow-poplar Referred to as 'Redwood of the East' because of the large size it can obtain.</p>			 	<p>Fast growing tree. Fall planting hazard.</p>
<p><b>Magnolia acuminata</b> Cucumber tree Good street tree for large spaces.</p>		 or 		<p>Tolerates limestone soils. Availability may be limited. Susceptible to verticillium wilt.</p>
<p><b>Metasequoia glyptostroboides</b> Dawn Redwood Unusual shape and form for street tree.</p>		 U		<p>Poor growth on alkaline soils. Availability may be problem. Low branched tree that requires early pruning if used as street tree.</p>
<p><b>Nyssa sylvatica</b> Blackgum One of the best trees for fall foliage</p>		 or  S	 	<p>Difficult to transplant. Descending branches necessitates pruning for clearance, even on older trees. Affected by limestone soils.</p>

<p><b><i>Platanus acerifolia</i> 'Bloodgood'</b>          Bloodgood London Planetree          Mottled bark attractive on older trees.</p>		 or  U S		Requires wide tree lawn. Tendency to form frost cracks but does better if planted in spring. Fruit & bark may cause litter problem.
<p><b><i>Quercus acutissima</i></b>          Sawtooth Oak          Good oak for narrower tree lawns.</p>	 to 	  or  U	Attractive summer foliage	Fruit may cause litter problem. pH sensitive. Fall planting hazard.
<p><b><i>Q. alba</i></b>          White Oak          Large growing tree more suited to parks than tree lawns.</p>				Slow growing tree. Difficult to transplant normal size trees. Does poorly on compacted soils. Fall planting hazard.
<p><b><i>Q. bicolor</i></b>          Swamp White Oak          Good street tree as replacement for White Oak.</p>		U S		Fruit may cause litter problem. pH sensitive. Transplants better than white oak. Fall planting hazard.
<p><b><i>Q. imbricaria</i></b>          Shingle Oak</p>	 to 	  U		Dead leaves on younger trees don't drop until spring. Fall planting hazard.
<p><b><i>Q. macrocarpa</i></b>          Bur Oak          Large growing tree suitable for parks and wide tree lawns.</p>		  or  U	Small branches have corky, winged ridges	Slow to recover from transplanting. Tolerates alkaline soil. Fall planting hazard.
<p><b><i>Q. rubra</i></b>          Red Oak          Good native tree if adequate growing space.</p>		  U S		Fall planting hazard. Fruit may be a litter problem. pH sensitive. Fall/winter pruning recommended where oak wilt present.
<p><b><i>Q. shumardii</i></b>          Shumard Oak          Similar in leaf shape and other characteristics to Red Oak.</p>	 to 	  U S		Fruit may be litter problem. Fall planting hazard. Does better on alkaline soils than Red Oak.
<p><b><i>Sophora japonica</i></b>          Japanese Pagoda Tree          Good medium to large growing tree with unusual green colored bark on younger branches.</p>		 U S	 	Flowers and fruit may cause litter problem. Twig blight may be a problem but doesn't affect tree health.

<p><b>S.j. 'Regent'</b> Regent Pagoda Tree Similar to species but smaller mature size.</p>		  U S		<p>Flowers and fruit may cause litter problem. Twig blight may be a problem but does not affect tree health.</p>
<p><b>Taxodium distichum</b> Bald Cypress Similar in shape to dawn redwood but more sensitive to high pH.</p>	 to 	 or 		<p>Requires early pruning if used as streettree. Availability may be a problem.</p>
<p><b>Tilia americana</b> American Linden Large native tree suited to large tree lawns and parks.</p>	 to 	 or   	 Fragrant	<p>Susceptible to verticillium wilt &amp; Japanese beetles. Flowers attractive to bees. Sprouts may be a problem.</p>
<p><b>T. a. 'Redmond'</b> Redmond American Linden Fast growing tree with more uniform shape than species.</p>		 or   S	 Fragrant	<p>Susceptible to verticillium wilt &amp; Japanese beetle. Flowers attractive to bees. Sprouts may be a problem.</p>
<p><b>T. cordata</b> Littleleaf Linden Popular downtown tree because of shape and adaptability.</p>	 to 	 or 	 Fragrant	<p>Adaptable to pH &amp; compaction but sensitive to drought and salt. Aphid honeydew and associated sooty mold may be a problem.</p>
<p><b>T. c. 'Glenlevin'</b> Glenlevin Littleleaf Linden Crown shape more closely resembles species than Greenspire Linden.</p>		 or   U	 Fragrant	<p>Adaptable to pH &amp; compaction but sensitive to drought and salt. Aphid honeydew and associated sooty mold may be a problem.</p>
<p><b>T. c. 'Greenspire'</b> Greenspire Littleleaf Linden Uniform crown shape.</p>		 or   U	 Fragrant	<p>Adaptable to pH &amp; compaction but sensitive to drought and salt. Aphid honeydew and associated sooty mold may be a problem.</p>
<p><b>T. tomentosa</b> Silver Linden Uniform shaped tree with dark green leaves &amp; silvery underside.</p>	 to 	 or   U	 Fragrant	<p>Tolerates heat and drought. Aphid exudation and defoliation may be problem. Basal sprouts may require pruning.</p>

<p><b><i>T. t.</i> ‘Sterling’</b> Sterling Silver Linden</p>	 to 	<p>U</p>	 Fragrant	<p>Similar to species but more resistant to Japanese beetle feeding. Fall planting hazard.</p>
<p><b><i>Ulmus americana</i> ‘Liberty’</b> Liberty American Elm</p>		<p>blue drop or grey drop</p> <p>U S</p>		<p>Availability may be limited. Possible resistance to Dutch Elm disease. Susceptible to verticillium wilt.</p>
<p><b><i>Ulmus americana</i> ‘Valley Forge’</b> Valley Forge American Elm</p>		<p>blue drop or grey drop</p> <p>U S</p>		<p>Availability may be limited. Possible resistance to Dutch Elm disease. Susceptible to verticillium wilt.</p>
<p><b><i>Ulmus parvifolia</i></b> Lacebark Elm Tough tree with attractive mottled bark.</p>	 to 	<p>blue drop or grey drop</p> <p>U</p>		<p>Highly resistant to Dutch elm disease.</p>
<p><b><i>U. p.</i> ‘Dynasty’</b> Dynasty Lacebark Elm Mature shape supposedly resembles American Elm.</p>		<p>blue drop or grey drop</p> <p>U</p>		<p>May be difficult to establish. Upright crown. Highly resistant to Dutch elm disease.</p>
<p><b><i>U. p.</i> ‘Ohio’</b> Ohio Lacebark Elm Same shape as American Elm but smaller mature size.</p>		<p>U</p>		<p>pH adaptable. Resistant to Dutch elm disease.</p>
<p><b><i>U. wilsoniana</i> ‘Prospector’</b> Prospector Elm Smaller growing elm but still retains vase shape.</p>		<p>U</p>		<p>Availability may be problem.</p>
<p><b><i>U.</i> ‘Frontier’</b> Frontier Hybrid Elm Fast growing elm showing good fall color.</p>	 to 	<p>U</p>		<p>Stem canker can kill individual branches. Resistant to Dutch elm disease.</p>

<p><b>U. 'Homestead'</b> Homestead Hybrid Elm</p>		<p>  or     </p>		<p>Availability may be problem. High resistance to Dutch elm disease.</p>
<p><b>U. 'Pioneer'</b> Pioneer Elm</p>		<p>  or     </p>		<p>Availability may be problem. High resistance to Dutch elm disease.</p>
<p><b>Zelkova serrata 'Green Vase'</b> Green Vase Zelkova Fast growing substitute for American Elm.</p>		<p>  or      </p>		<p>Fall planting hazard. Resistant to Dutch elm disease.</p>
<p><b>Z. s. 'Halka'</b> Halka Zelkova Large fast growing tree similar in shape to American Elm.</p>		<p>  or      </p>		<p>Fall planting hazard. Highly resistant to Dutch elm disease. Availability may be a problem.</p>