



Campus Tree Inventory University of Missouri-St. Louis (January 2007)



GENERAL OBSERVATIONS & RECOMMENDATIONS

- 1) **A total of 2309 trees were inspected.**

- 2) **The distribution of tree species on the UMSL campus is very good.** Diversity is a sign of a healthy urban forest. Urban foresters typically recommend that one species should not comprise more than 10% of a population. Only Red maple is at the 10% level. In this case, there is a very good distribution of species. This displays a strong commitment to diversity.
 - ü A total of 87 different species were identified throughout the campus.
 - ü Consider further increasing the number of Missouri native species in future plantings.
 - ü Red maple is at 10%; stop planting until percentage drops.

The following are some recommended tree species for the future plantings:

Large Canopy Trees	Medium Canopy Trees	Small Canopy Trees
Little Leaf Linden	Ohio Buckeye	Flowering Dogwood
Baldcypress	Horsechestnut	Redbud
Red Oak	River Birch	Serviceberry
Bur Oak	Yellowwood	Carolina Silverbell
Swamp White Oak	Katsura Tree	Witchhazel
Blackgum	Golden Raintree	Amur Maple
Willow Oak	American Hornbeam	
Kentucky Coffeetree		

- 3) **The diameter distribution on the Campus is great.** The Diameter Distribution curve is just as it should be to insure trees on the UMSL campus for many years.
 - ü Continue using Missouri natives when designing new planting areas.
 - ü Maintain the current diameter distribution curve through thoughtful maintenance and plantings efforts.

- 4) **Overall, the quality of the tree resource is good.** The majority of trees (75%) were rated as “good”. Continued quality maintenance will increase the number of trees in the “excellent” and “good” categories.



5) **Begin developing a program to remove hazard trees.** Review the HAZARD Tree information. The list indicates the trees that are considered hazardous. Each record has a recommendation of removing the tree or pruning a hazardous limb. Trees that are rated at 10 or above should be addressed immediately, while the others should be addressed after you inspect them and determine action as budgets allow. Refer to the included copy of 'Urban Tree Risk Management'.

- ü Review the section that discusses the hazard rating system.
- ü Develop a hazard tree removal program.
- ü Consider a TRIM II grant from the Missouri Department of Conservation to address this list of mature, storm-damaged, and diseased trees.

6) **Mulching will create a stable environment for root growth.** It will also provide newly planted trees with protection from lawn mower damage. Mulching can be both functional and decorative but must be applied correctly. A mulched area should only be about 3-4 inches deep and mulch should be pulled away from the base of the tree. Piling up mulch at the base of a tree (Volcano mulching) is not recommended. Recent research indicates that *improper* mulching can promote the development of stem girdling roots and other defects that lead to early decline and death of ornamental trees.

- ü Implement proper mulching techniques throughout the campus.

7) **As budgets allow, address other maintenance needs.** Several trees require mulching and pruning. Structural pruning is an important activity that should **not** be over-looked. Training small trees to have good form with a central leader will reduce the structural problems in the future.

Additionally, two areas in particular that would benefit from regular and/or specialized maintenance are the newly planted Swamp White oaks at the Touhill Center for Performing Arts and the large Pin oaks that line the sidewalk at Seton Hall.

- ü Consider specialized maintenance program for Touhill Center new plantings.
- ü Consider specialized maintenance program for Seton Hall pin oaks that are stressed from construction.
- ü Consider providing a program to crewmembers on current tree pruning practices.

8) **Partial funding for this inventory was provided by a grant** from the Missouri Department of Conservation.

