

Woody Plant Care

Description

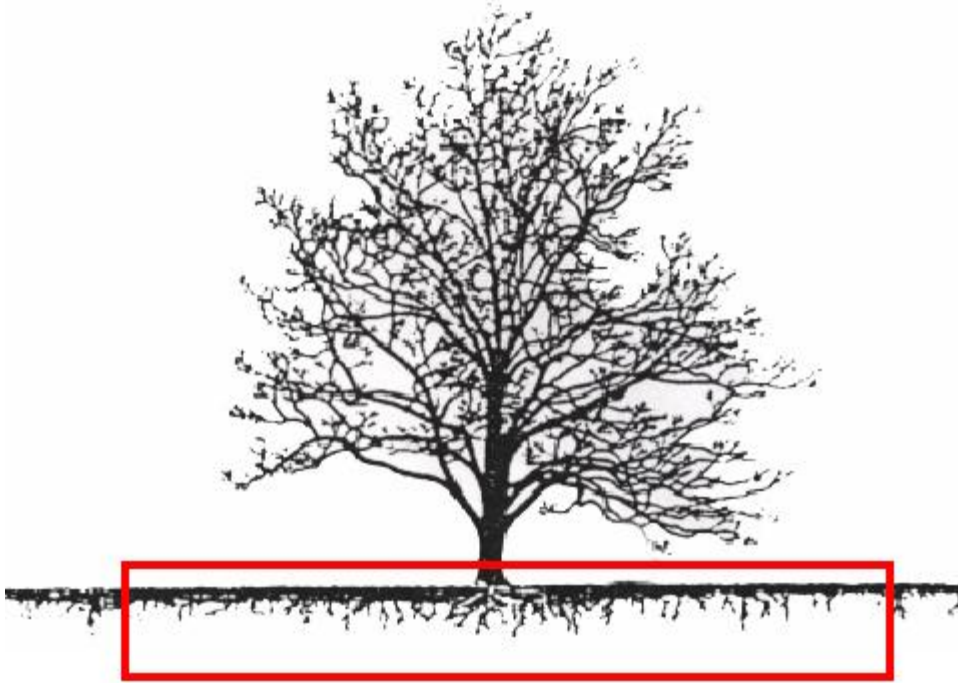
Properly plant and maintain trees, shrubs and other woody plants to maximize the plants' health.

Basic Practice Guidelines

1. Plant and prune trees in accordance with the International Society for Arboriculture (ISA) standards.
2. Proper tree planting with the root collar at grade or one to two inches above grade helps in better establishment and long-term health of a tree. In irrigated turf areas, the root collar should be at least two inches above grade. Planting holes should be shallower than the root ball for this to occur.
3. When planting balled-and-burlapped or container stock, avoid soil interface problems by amending the backfill to provide a transition between the soil in the root ball and the surrounding soil. Do not amend soil beneath the root ball. Place root balls on firm, compacted soil. Also score root balls and the sides of the hole to aid in transition.
4. When planning irrigation for trees, zone them separately from turf because trees adapt better to the site with deep, less frequent waterings.
5. Regular watering of trees is important because moisture stress is a precursor to many diseases and insect problems. Trees may be deceiving in that they may not show stress for several years after drought damage. It is also important to keep in mind that too much water can also cause problems.
6. Trees and other woody plants typically require additional watering for one to two growing seasons to become established (As a rule of thumb, trees require one year per inch of caliper to become established). This includes winter watering for newly planted trees, particularly evergreens when snow is absent.
7. Tree root systems can spread two to three times wider than the height of the tree. Most of the tree's absorbing roots are in the top 12 inches of the soil. Water should be applied within and beyond the dripline, deeply and slowly. Apply water so it moistens the critical root zone to a depth of 12 inches. For evergreens, water should also be applied three to five feet beyond the dripline. Methods for watering include a deep root fork or needle, soaker hose or soft spray wand. Apply water to many locations under dripline. If a deep root fork or needle is used, insert the device no deeper than eight to ten inches into the soil.
8. During prolonged dry periods in the fall and winter (October –March), water trees one to two times per month. Water only when temperatures are above 40 degrees and no snow cover exists.

BMP Type			
Design			X
Installation			X
Maintenance/Operation			X
Green Industry Relevance			
ASLA	X	GCC	X
ALCC	X	ISA	X
CALCP	X	RMSG	
CGGA	X	WFC	
CNA	X		

9. The desired water application rate for trees varies by trunk diameter and irrigation device, see <http://www.watersaver.org/saveourshade.asp> for recommended application rates by tree size, watering device and season. A general “rule of thumb” for small and medium size trees is to use approximately 10 gallons of water per inch of trunk diameter (measured at knee height) for each watering. The frequency for small trees (1-3”) is to water weekly throughout the season. Medium size trees (4”-8”) will only require watering three times per month throughout the season. Water large trees (10”+) twice per month at a rate of 15 gallons of water per inch of trunk diameter throughout the season. Modify if rain occurs.
10. Apply organic mulch within the dripline at a depth of four inches to conserve moisture. Leave a six-inch space between the mulch and trunk of trees. Mulch materials may include wood chips, bark, leaves and evergreen needles.
11. Practice plant health care (PHC) programs and proper tree maintenance to create healthy trees and landscapes.
12. Properly prune young trees to develop structures so they are well suited to the site and their intended landscape function.
13. Prune trees to remove dead, broken, insect-ridden and diseased branches to maximize plant health and to minimize pest invasion. For branches that are heavily infested with scale insects, pruning can be an effective management strategy. Do not “top” trees.
14. Protect young trees from winter sun damage by wrapping the trunk with tree wrap. A general rule is to wrap on November 1 and unwrap on April 1. It is important to remove the wrap in the spring to prevent insects and diseases from harboring beneath it.
15. Many tree species are harmed by herbicides used in the lawn. Trees already stressed by drought can be harmed by a heavy application of herbicide in the root zone.



Deeply and slowly water trees beneath the dripline.

Source: WaterSaver.Org. 2004. Save Our Shade Web Site: <http://www.watersaver.org/saveourshade.asp>.

Regional or Industry Considerations/Adaptations

1. In Front Range communities, a goal of 20 percent canopy coverage is recommended. The “urban forest” provides multiple benefits such as reducing stormwater runoff, providing shade and protecting against wind.
2. For trees planted near streams and drainages, it may be necessary to install wire baskets around trunks to prevent beaver damage.
3. Trees that have recently received root injury due to construction work need supplemental watering if the root system has been compromised.

Key References

Associated Landscape Contractors of America. 2003. *Landscape Installation Training*. Herndon, VA: ALCA.

Associated Landscape Contractors of America. 2003. *Landscape Maintenance Training*. Herndon, VA: ALCA.

Britton, J. 1994. *Tree-Pruning Guidelines*. Champaign, IL: International Society of Arboriculture.

- Colorado Nursery Association. 2001. *Colorado Certified Nursery Professionals Manual*. Denver, CO: CNA.
- Feucht, J.R. 1999. *Xeriscaping: Trees and Shrubs. Fact Sheet No. 7.229* <http://www.ext.colostate.edu/pubs/Garden/07229.html>. Ft. Collins, CO: Colorado State University Cooperative Extension.
- Harris, R., J.R. Clark and N.P. Matheny. 1998. *Arboriculture: Integrated Management of Landscape Trees, Shrubs, and Vines*. Englewood Cliffs, NJ: Prentice Hall.
- Klett, J.E. and D.E. Whiting. 1999. *Care of Young Transplanted Trees. Fact Sheet No. 7.226*. <http://www.ext.colostate.edu/pubs/Garden/07226.html>. Ft. Collins, CO: Colorado State University Cooperative Extension.
- Klett, J.E. and D.E. Whiting. 1999. *How to Plant Trees and Shrubs. Fact Sheet No 7.417*. <http://www.ext.colostate.edu/pubs/Garden/07417.html>. Ft. Collins, CO: Colorado State University Cooperative Extension.
- International Society of Arboriculture, Rocky Mountain Chapter. 2002. Web site: www.isarmc.org.
- International Society of Arboriculture. 1992. *Arborists Certification Study Guide*. Champaign, IL: ISA.
- Lloyd, J., T. Moell and B. Kruidenier. 1997. *Plant Health Care for Woody Ornamentals: A Professional's Guide to Preventing & Managing Environmental Stresses & Pests*. Urbana, IL: University of Illinois.
- WaterSaver.Org. 2004. Save Our Shade Web Site: <http://www.watersaver.org/saveourshade.asp>