

### Tree planting & care definitions and references:

**Adventitious roots** – Roots that grow from somewhere other than a primary root, such as on the main trunk.

**Air terminals** – Copper or copper bronze points that are usually attached to the tree with barbed copper nails. Usually located near the top of any major leaders or on major branches in a tree.

**American National Standards Institute** – Produces standards for tree care practices (Z133.1), nursery stock (Z60.1), and pruning (A300) as well as for other industries.

**ANSI Z1331.1** – Set of standards for arboricultural operations approved by the American National Standards Institute. It is intended to provide safety standards for workers engaged in pruning, repairing, maintaining, or removing trees or cutting brush

**Balled & burlapped tree** – Type of nursery stock in which the plant is dug with soil surrounding the roots, and then wrapped with protective material.

**Bare root tree** – Type of nursery stock in which the plant is sold without soil around the roots.

**Bark** – Outer covering of a tree's branches and stem that moderates the temperature inside the stems, reduces water loss, protects the cambium tissue from injury. Composed of nonfunctional phloem and corky tissues.

**Bracing** – Installation of metal rods through weak portions of a tree (Lilly, 1994).

**Branching structure** – How the branches are situated in the crown. Forest trees tend to have a single dominant leader and well-spaced lateral branches. Urban trees tend to have multiple, competing trunks or leaders because they receive more sunlight.

**Cabling** – Installation of thick heavy wire (often in strands) and associated hardware in the crown of a tree to provide support.

**Call 811** - Call 811 from anywhere in the country, the call will be routed to the local One Call Center. In Indiana, the local Once Call Center is Indiana Underground Plant Protection Service (IUPPS).

**Certified Arborist - International Society of Arboriculture (ISA)** - Individuals who have achieved a level of knowledge in the art and science of tree care through at least three years of experience and have passed a comprehensive examination.

**Circling roots** – Roots that grow around the trunk in a circular manner rather than laterally away from it. Can also be found in new planting stock.

**Container tree** – Tree sold in a container such as a pot.

**Compartmentalization** - The boundary setting process that resists loss of normal wood function and resists the spread of decay.

**Crown** – Leaves and branches of the tree measured from the lowest branch on the trunk to the top of the tree (ANSI A300, 2001).

**Fertilizer** – Any organic or inorganic material of natural or synthetic origin added to a soil to supply certain elements essential to the growth of plants (Brady and Weil, 1996).

**Inorganic** – All chemical compounds in nature, except the compounds of carbon, but including the carbonates (Horticultural Research Institute, 1971)

**ISA** – International Society of Arboriculture. A worldwide professional organization dedicated to fostering a greater appreciation for trees and to promoting research, technology, and the professional practice of arboriculture.

**ISA Arborist Certification** - A non-governmental voluntary process that operates without mandate of law. It is an internal self-regulating device administered by the ISA.

**IUPPS** – Indiana Underground Plant Protection Service. The law requires notification two full working days before digging.

**Main lateral root** – A major, woody root that extends out from the main trunk of the tree. This should be at soil grade or slightly above.

**Mulch** – A material applied to the surface of the soil to reduce the evaporation of water, moderate soil temperatures, reduce erosion, limit weed growth, etc. The term is the same whether organic or inorganic material is used.

**Nutrients** – Substances such as mineral elements and compounds that a plant synthesizes into the complex compounds of tissue (Horticultural Research Institute, 1971).

**Organic matter/mulch** – Plant and animal residue that decomposes and becomes a part of the soil

**Organic fertilizer** – Fertilizer that came from a living organism, which needs to break down for the nutrients to become available to the plant, such as manure, compost, grass clippings, etc.

**pH** – A measure of the acidity or alkalinity of the soil. pH of 7.0 is neutral, acidic soils has pH less than 7.0, and alkaline soil is greater than 7.0

**Root flare** – The spot where the trunk widens and main roots begin to emerge

**Reputable tree care company** – A tree care company that discourages topping, has knowledgeable employees, and is insured.

**Soil test** – Analysis of soil to determine pH, mineral composition, structure, and other characteristics.

**Stem girdling root** – A root that encircles the plant rather than spreads out radially, and compresses the stem tissues. If the stem-girdling root encircles the entire tree, it can kill the tree.

**Stem root graft** – The connection of two pieces of living plant tissue in such a manner that they will unite, grow, and develop as one plant.

**Sunscald** – Type of injury to bark and cambium caused by low temperatures, characterized by rapid decrease in temperatures.

**Surface application fertilizing** – Method of fertilizing that places the fertilizer on the grounds surface where it can be watered into the soil. Can be done via a broadcast spreader or through a sprayer.

**Tree implant fertilizing** - Introduces the fertilizers directly into the xylem of the tree, dependent on the transpiration system of the tree to move the nutrients systemically throughout the tree.

**Tree injection fertilizing** - Injection of liquid fertilizer with a pressurized "soil needle".

**Tree wound** – Broken, torn, scraped bark or branches caused by poor pruning, lightning, direct impacts to trunk, or insect and disease problems.

**Tree wrap** – Fabric or polypropylene plastic that is wrapped around the trunk of the tree. Best used on thin barked trees such as Red maple.

**V-crotch** – A junction between stems with included bark, a union that is weak, the union looks like a V.

**Volcano mulching** – Mulch that looks like a volcano because it is piled up against the tree trunk at an excessive depth.

**Watering bags** – Drip irrigation system that delivers water directly to a root system over an extended period of time.

**Woody roots** – Roots that have developed into mature, thicker roots with bark and additional vascular tissue.

**Wound** – Any act that opens up the vascular system to pest, disease, and fungus.

#### References:

Dr. Ed Gilman. Landscape Plants. December 2007. Online. Internet. December 10, 2007.  
<http://hort.ifas.ufl.edu/woody/pruning/>

International Society of Arboriculture. *Plant Health Care for Woody Ornamentals*. Champaign, Illinois: Printec Press, 1997

Lilly, Sharon J. and International Society of Arboriculture. *Arborist' Certification Study Guide*. Wichita, Kansas: ADR BookPrint, 2001

Harris, Richard A., Clark, James R. and Matheny, Nelda P. *Arboriculture, Integrated Management of Landscape Trees, Shrubs, and Vines*. Upper Saddle River New Jersey: Prentice Hall, 2004.