Garden Update
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Trees: Planting and Watering

Now that Spring has sprung and you've made your choice of what tree to plant, be sure to put as much thought and sweat equity into making sure your new tree is planted correctly. First, locate the tree's root flare, the natural widening found where the tree trunk meets the roots. It may be necessary to remove excess soil at the top of the rootball to locate the flare. Then measure the distance from the flare to the bottom of the rootball. Dig the planting hole to this depth, opting to make the hole wider than deep. This allows the rootball to set firmly on un-loosened soil making it less likely to sink over time, while the hole's width allows soil to be broken up as it is backfilled. Keep your foot out of the planting hole, firming the soil instead by watering to eliminate air pockets. When finished, the tree's flare should be visible at or slightly above the soil line.

How important is it to plant a tree at the correct depth? In a study by Quine and Gardiner (2005) of the Forestry Commission Research Agency, one of the biggest contributions to tree failure under wind loads occurs at the time of planting, when trees are planted too deep. These trees develop inadequate roots, resulting in "socketing", where the rootball rotates, allowing young trees to blow over, or trunk windsnap occurs where too-deep planting promotes decay and weakens trunks at the base. Given the amount of wind throughout the Midwest, a mindset of tree safety and longevity should be a priority at planting time. Provide support to trees over 5 feet tall with fabric ties secured to stakes the first year, then remove the materials to prevent girdling.

Watering newly-planted trees is a must for establishment success. Most in-ground irrigation systems do a poor job of watering trees, creating saturated soil in the top 3 inches or so while leaving lower roots dry. When watering, for every inch of caliper, the tree takes a corresponding year to establish. Thus, a tree that is planted at a 2-inch caliper requires two years to establish, a 3-inch tree takes 3 years, and so on. Keep this in mind because, the larger the tree, the more years will be devoted to watering until it is established:

Appropriate Doses of Water; 1-2 gallons per caliper inch; Never apply water if soil is saturated or frozen.		
Size of Nursery Stock	Watering for Tree Vigor	Watering for Tree Survival
Less than 2-inch caliper	Daily: First two weeks Every other Day: For 2 months Weekly: Until established	Twice weekly for 2-3 months
2-4-inch caliper	Daily: First month Every other day: For 3 months Weekly: Until established	Twice weekly for 3-4 months
Greater than 4-inch caliper	Daily: First 6 weeks Every other day: For 5 months Weekly: Until established	Twice weekly for 4-5 months
		Gillman & Sadowski, 2007