

Are You Running a Plant Hospital?

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If most of your trees have splints, stakes or other sorts of casts or supports to hold them up, you are indeed running a plant hospital. I much prefer to grow trees without such restricting and growth limiting devices that are huge consumers of labor. If stakes were essential for growing attractive trees, Mother Nature would have gone out of business long ago and we would be living on a treeless prairie. And, who in the world came up with the idiotic concept that every tree should look precisely like every other tree as if they all came out of an injection molding machine!



Trees that are typically beaten into submission with stakes and severe pruning so they all look alike at the time they leave the nursery will not look like identical twins 3, 5 or 10 years in the landscape unless the tree is a cultivar. This is because of inherent genetic diversity, which is good. This diversity is thought to increase continuation of the species should a catastrophe occur. All offsprings from the same parents are different and this is as true with trees as with children. With some species such as birch, differences are small while with oaks the differences are typically large.

It is not only practical, but much more economical to grow good looking trees without stakes. Here's how.

1. Start with good seed from sources well adapted to your location and area of sales.

2. Plant seeds or transplant very small seedlings into 32 or 18 cell RootMaker® propagation containers.

3. Grow 20 to 100% more seedlings than you want to grow on. Keep the seedlings with stout stems (even though they may not be the tallest) and throw all runts and seedlings with weak stems away. Energy from leaves is responsible for stem diameter increase and root growth. Seedlings with less efficient leaves will have spindly and weak stems and weak root systems.

4. Transplant before seedlings become crowded and cause significant shading one to another. Once lower leaves on any seedling

begin to be shaded, the plant response is to grow taller in order to access more light. And, the taller the plant, the more likely you will be caught in the quagmire of staking. This is a crucial step often overlooked.



5. Leave all lower leaves and branches on the young trees as long as possible. Research has shown that leaves on the lower portion of the tree are the prime contributors of energy for stem diameter and root growth. If you remove lower leaves early, both stem diameter and root growth will be sacrificed. The only exception is the removal of especially aggressive lower limbs – those that try to challenge the central leader.

6. At the end of the second full growing season or later, when the stem diameter near the base is 1.5 to 2.0 inches and there is distinct stem taper – from base to tip, like a deep sea fishing rod – begin selective removal of the largest lower branches.

** If you remove lower limbs early, the main stem of the tree will have parallel sides, like a piece of pipe. This happens because energy moving downward from the leaves is first accessible by the upper portion of the branchless stem, the upper portion grows as fast as the more basal portion and the stem remains with parallel sides. When stress occurs – wind, ice, or vandalism – breakage occurs at the base. By contrast, with good stem taper from base to tip, stress is spread over the entire length – again, like a deep sea fishing rod, and breakage of stems is rare.

Will every tree look exactly like every other tree? No, but that is the nature of seedlings and the natural genetic diversity.