Wisdom From the Trees Mother Nature's Moment - November, 2020 by: Lesley Bruce Smith, ISA Certified Arborist

## How Do You Tell It Is Alive or Dead Without Leave

This time of year the question of "How can we tell what is alive or dead?" is a frequent one. It is so second nature to us that we often forget to explain to you how we tell if a branch is alive or dead in the middle of the "dormant" season. Let's start by talking about what we mean when we say: "dormant season". In the 'olden days', our understanding of what deciduous trees were doing in the winter was intuitive but inaccurate. Trees that lose their leaves in the autumn, do slow down their processes in order to survive the long journey around the sun. However, to say that trees go dormant during the winter is a bit misleading.

In order to fully explain this I am going to step back a bit and talk about what deciduous trees (that loose their leaves) are doing in the peak of summer. It takes an enormous amount of energy for a tree to form flowers and leaves every year. Trees, in

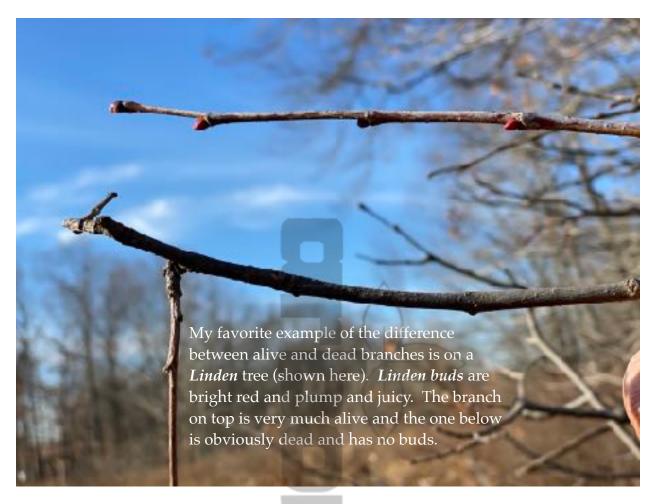
Red Oak Branches The branch on top is alive and has healthy buds, the branch on the bottom has no buds so we know it is dead.

Healthy Sugar Maple Branch As you work with trees year after year it becomes VERY easy to tell what is alive or dead, mostly because we are like a counterfeit expert. They don't study all the counterfeit things, they study the REAL thing and know it SO well that seeing a fake is easy.

When you see the living buds healthy and ready for spring you KNOW what you are looking at in an instant and from 20' away.

their wisdom, know this and so when the sun's energy or light energy, the tree's only source of food, is at its zenith it is doing all the hard work of creating the buds that hold flowers and leaves for the following spring. So many people are confused by this. They think that the buds for next spring are formed in the spring. The truth is that next spring's buds were formed during this last summer. That is because the months of May. June and July are the months when the sun's energy=light is strongest and longest. When spring comes and we begin to see the beautiful chartreuse little leaves and

colorful flowers emerge from the ends of the branches, what we are seeing is the energy that was all stored up last summer coming forth. This is also why we never shear shrubs or trees, especially in the fall, because we would be cutting off all of next year's flowers. The trees DO photosynthesize throughout their long winter journey but at a MUCH slower pace. They are in a sort of hibernation, but like their mammalian



friends, hibernation is just slowed down life, not the ceasing of life, and when a tree stops growing, it is dead.

SO...we can always tell when a branch is alive when it is covered in the buds awaiting next spring. We can also tell when a branch is alive by scraping the bark gently and seeing if there is "green" underneath. Green is the sign of photosynthetic activity or life! When it is brown or gray we know that the branch is dead. Dead branches are also often dried and shriveled looking. Dead branches often are very brittle, and simply break off. Living branches and buds are plump and juicy and full of photosynthetic life and easily identified by arborists who know their job.





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