



Best Landscape Company Two Years in a Row & Best Tree Service!

<u>Question this Week:</u> This is a question whether the new super blue (3 to 6 Kelvin color rating) LED streetlamps cause significant damage to trees in the vicinity of the lighting...James

## Linda's Answer:

Concerns about how artificial light affects trees have been around for several hundred years, ever since gas lights started showing up on city streets almost exactly 200 years ago. Trees "tell time" by a kind of molecular "clock". This "clock" tells them when to open their buds in the spring and when to drop their leaves in the fall. Just like people can perceive the colors of the visible electromagnetic spectrum, so can trees. The visible light electromagnetic spectrum ranges from "cool" blues to "warm"

reds. Trees can only sense the red to very red "warm" part of the spectrum. Over the years, the "color" of lights we have used to light our roads and parking lots has changed many times as technology has evolved. In the early days of street lighting, fluorescent lights, which can emit a wide range of color from high blue to very low red light, were used and had very little effect on the trees around them. Later, high pressure sodium lights which emit a high red light were developed. These lights can have a noticeable effect on very close tree branches, causing them to hold their leaves longer into winter and



bud too early in the spring. However, since the intensity of light diminishes rapidly as you move away from a light source (light intensity 4 feet from a light source is only 1/10,000 of what it is 1 foot from the light), it would seem that there is little practical cause for concern except for a few close tree branches. In addition, LED technology is still fairly new and most of these lights emit light toward the blue part of the spectrum, so the effect on the nearby trees is most likely negligible.

Linda K. Lillie has been President of Sprigs & Twigs, Inc. for the last 21 years. She is a graduate of Connecticut College in Botany, an accredited NOFA Organic Land Care Professional, a Connecticut Master Gardener and a national award winning landscape designer for her design and installation projects..

Sprigs & Twigs is scheduling appointments for 2017 Garden Design, Landscape Maintenance, Tree Care Services, Custom Stonework, Custom Carpentry Services and Floral & Décor. Visit our web site for details. Call us anytime to discuss your landscape needs and to meet with our staff.

