

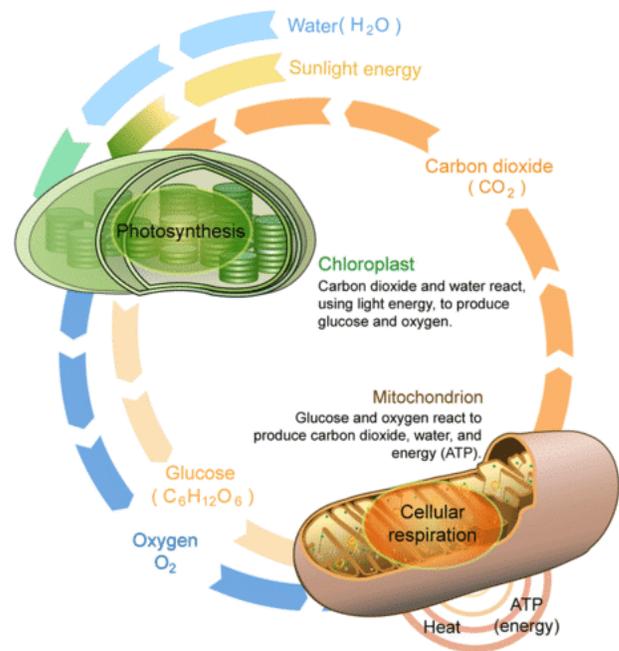


**Subject: The Beneficial Effects of BRe<sup>3</sup> on Photosynthesis and Cellular Respiration**  
**From: BioRadiance Science Team led by our Ph.D. in Plant Physiology**  
**Date: August 2018**

## BRe<sup>3</sup> -- NEW LIGHT ENERGY THAT ACCELERATES RATES OF PHOTOSYNTHESIS AND CELLULAR RESPIRATION

Every cultivator knows that increasing the rate of photosynthetic carbon dioxide assimilation is paramount to achieving biomass accumulation or maximum growth = larger, stronger and healthier plants. The Wand with BRe<sup>3</sup><sup>TM</sup> light energy increases photosynthetic activity naturally and safely.

How? In stimulating the photosynthetic activities of plants and their cellular respiration process, we also increase production of Adenosine Triphosphate (ATP) in photosynthesis and oxidative phosphorylation. Photophosphorylation occurs during photosynthesis and oxidative phosphorylation during cellular respiration. These activities enable the plant to maintain its dynamic balance between photosynthesis and cellular respiration during the day and night cycles. These accelerated activities are especially related to carbon dioxide uptake, synthesis of secondary metabolites and plant hormones, but at a faster pace. This means more nutrient uptake and healthy growth.



The picture above shows sunlight energy as necessary for a plant's growth and health. **Today's indoor grow lights do not deliver a full spectrum of light like the sun.** The Wand uniquely adds the "Missing Wavelengths<sup>TM</sup>" of light that the sun normally delivers to plants and this added energy allows the plant to maximize its potential. We call these unique missing wavelength combinations BRe<sup>3</sup>.

We also know that ATP is a primary form of energy that plants use directly. ATP is the currency that funds all cell activity. By increasing ATP production, BRe<sup>3</sup> light energy is also making the plant healthier, richer and more valuable as well as stronger, more disease resistant, tougher and happier.

BRe<sup>3</sup> light energy is a natural, clean and safe generator of increased ATP production. Cellular respiration and photosynthesis are complimentary processes. Energy from BRe<sup>3</sup> light enters a plant and is converted into glucose and other carbohydrates during photosynthesis. Some of the energy is used to make ATP in the mitochondria during cellular respiration, and some is lost to the environment as heat. BRe<sup>3</sup> light energy is stimulating the production of sugars, proteins, lipids and secondary metabolites, which add additional currency to the plant. And adding energy to the cellular respiration process so it can keep up with increased photosynthesis.

**FACT:** The sun has nurtured plants for millions of years. Plants have evolved and adapted to the sun's complete spectrum. Plants want and need the total spectrum! Their genes are tuned for the sun's total spectrum. Grow lights provide roughly 40% of the sun's total spectrum.

Only the patented PD Wand with BRe<sup>3</sup> can give you the "Missing Wavelengths™" that aid in increased photosynthesis and simultaneously cellular respiration, cellular repair and cellular management. **Your plants are starving for them!** Without BRe<sup>3</sup>, it could take millions of mutations and hundreds of years for plants to adapt to growing without the "missing wavelengths".

**Why penalize your plants? Stimulate them instead. Give them what they need and expect. Give them the "Missing Wavelengths™" of the sun's full spectrum.** Your plants deserve to be treated well.

**Confidential Information:**

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