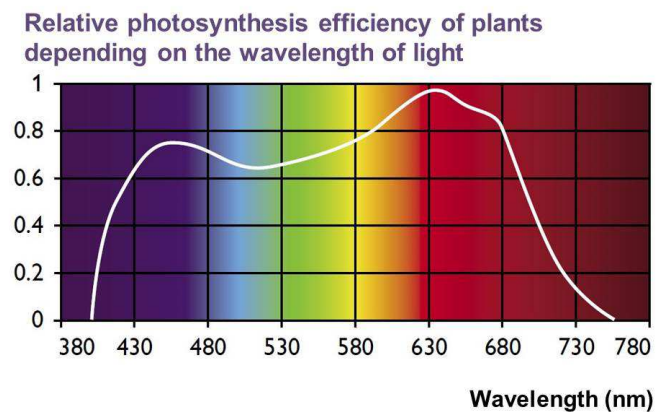
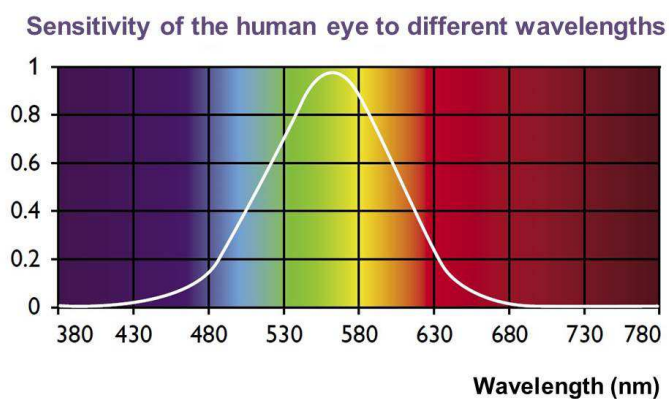


## SIDEBAR

### Plants and humans 'see' differently

Plants have a completely different sensitivity to light colors than humans. With regard to plant growth, light is defined in terms of small particles, also called photons or quantum. The energy content of photons varies, depending on the wavelength of the light (light color spectrum): light with a short wavelength (such as blue light) consists of high-energy photons, while light with a longer wavelength (such as red light) consists of low-energy photons. For a specific optical energy, around one and a half as many red photons can be produced compared with blue ones, so it is more energy-efficient to use red light than blue light.



However, plants also have varying sensitivities for different colors of light, and that influences different light-sensitive activities as well: the only part of the global radiation spectrum which can be used by a plant for its photosynthesis – the basic process that leads to growth of a plant – is between 400-700 nm, while the human eye is particularly sensitive to light with wavelengths between 500 and 600 nm.

Using efficient light sources for plants coupled with effective light recipes is important to obtain optimal results in plant production.