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Plant Stress Response Towards Different Light Spectrum

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Abstract

Orchid has been a well-known plant in horticultural industry in the world. Light sources play an important role in the growth cycle of the plant. Lack of light amount exposure or overexposure of light source to the plant may result in varied plant response. The plant, *Phaleonopsis* sp. in this research was exposed under different wavelength of light daily. At the end of the experiment, the plant was measured for its weight and length. It was found that the leaves expansion was the highest for the plant that was exposed under red light. Meanwhile, the enzymatic activity for the plant leaves extract was carried out too. The highest ascorbate peroxidase activity belong to red light plant extracts. In conclusion, different light spectrum have plays a significant roles in plant growth as well as plant stress enzymes.

Keywords: Orchid, Light, Enzyme, *Phaleonopsis* sp.,