LEAF AREA INDEX AND LIGHT INTERCEPTION IN AFRICAN VIOLETS

(Streptocarpus sect. Saintpaulia)

ABSTRACT

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African violets are a genus of six flowering plants from tropical eastern Africa, commonly known as *Saintpaulias*. They can thrive indoors in low light conditions and bloom all year round. They require less light than other blooming plants and can bloom during regular daylight hours in the US and Canada if given proper exposure. Several light intensities were used for the African violet (*Streptocarpus sect. Saintpaulia*) experiment, which showed a significant variation in the amount of chlorophyll present, the height of the plants, and the appearance of the tillers. In the red light, there was a significant difference in the chlorophyll concentration for the t test of 0.17681641. On the t test, blue light revealed substantially increased plant height and tillers (0.31519468, 0.34040143) than control and no light.

Although light is crucial for plant growth and development, when we study a plant in a greenhouse under regulated lighting, it appears light green. This is because there isn't enough light available. One of the several light intensities used in our experiment was (Red light, blue light, No light, Control). Blue light promotes vegetative development, whereas red light stimulates photosynthesis during blooming. Blue and red light play two distinct functions.

In a lab experiment, the impact of various light wavelengths on the development of African violets was investigated. African violets were grown in twelve pots, and three identical plants were each exposed to red light, blue light, no light, and controlled light. For 13 days, measurements of the plant's tillers, height, and chlorophyll content were made every three days.

Key Words: African Violets, Leaf Area Index, Photosynthesis, Flowering, Tillers, Chlorophyll Content, Vegetative Growth.