

STUDY EFFECT OF LED LAMPS ON FLOWERING OF PITAYA (*Hylocereus undatus* Haw.) IN CHAU THANH DISTRICT, LONG AN PROVINCE

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Summary

The studies consisted of 7 experiments at 7 during different periods from april 2017 to march 2018 at Chau Thanh district, Long An province. Four types of LED 10W and two types of fluorescent compact 20W (red and yellow spectrum) were used in the investigation. LED bulbs are denoted in turn from LED 1 to LED 4, the color spectrum of light and different light intensity, photosynthetically active radiation of these lights were measured $0.91-1.13 \mu\text{mol.m}^{-2}.\text{s}^{-1}$ in LED, red compact 1.13 and yellow one $0.6 \mu\text{mol.m}^{-2}.\text{s}^{-1}$. The bulbs are arranged in rows with a distance of 2 meters/shadow, lighting time is 10 hours from 7 pm to 5 am the next morning. Aggregate results of seven experimental data shows that LED1 had a highest effect to flowering with 41 branches/post. On the contrary, LED2 stimulated a lowest bud formation. Similarly, LED3 had less effect than compact bulb on flowering. In addition, using LED saved 50% cost of electricity comparing compact lamps for flowering on pitaya.

Keywords: *Flowering, fluorescent compact bulb, LED bulbs, pitaya.*