

Narisa Sornsart 2010: Effects of Light Intensity and Hydrogen Cyanamide on Off-Season Flowering of Dragon Fruit (*Hylocereus undatus* (Haw.) Britton & Rose and *Hylocereus polyrhizus* (F.A.C. Weber) Britton & Rose). Master of Science (Agriculture), Major Field: Horticulture, Department of Horticulture. Thesis Advisor: Associate Professor Chalongchai Babprasert, B.S. 108 pages.

Effects of light intensity and hydrogen cyanamide on off-season flowering of dragon fruit planted at Suankasetkeawmungskorn orchard, Nong-Sua District, Pathum Thani Province during May 2008 to January 2009 was studied using 5 light exposedness: standard bulb 100 watt, fluorescent lamp 40 and 20 watt and compact fluorescent lamp 18 and 13 watt at 50 cm. from both sides of plant. The experiment was done on 7 year-old dragon fruit plant with automatic light timer from 10:00 pm. – 01:00 am. for 30 days during 15 September 2008 – 14 October 2008. The result showed that *Hylocereus undatus*, light exposedness of 100 watt gave the highest number of flower (81.33) fruit (33.33) and the profit of 347.95 bath/column. On the other hand *Hylocereus polyrhizus*, light exposedness of 18 watt gave the highest number of flower (20.67) fruit (1.67) and the profit of 56.73 bath/column. The result of the experiment during 2 November 2008 – 1 December 2008 showed that *Hylocereus undatus*, light exposedness of 100 watt gave the highest number of flower (34.33) fruit (27.33) and the profit of 372.60 bath/column. *Hylocereus polyrhizus*, light exposedness of 100 watt gave the highest number of flower (30.00) fruit (24.33) and the profit of 350.60 bath/column. While hydrogen cyanamide was not able to induce and promote flowering in off-season Dragon fruit.

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Thesis Advisor's signature